

Chapter 6

They can't catch so what's the point in teaching them to play a game? Teaching Games in the Primary School

Gavin Ward

Introduction

Everyone has at some point been involved in playing games. Whether it is playing the full codified sporting version or more impromptu games played in the school playground, whatever the format and location, games form an integral part of our sporting culture (Jarvie, 2000). Games retain distinct identities, shaped not only by their rules, equipment and playing surfaces but also by distinctive terminology and metaphoric language (Blanchard, 1995). These game cultures can be mystifying, particularly for those who do not have an undying passion for them, or for those for whom games are a distant, but an all too often painful memory, of wet, cold, wintery days of obligatory participation at school. Games can pervade popular culture, with many people considering themselves an unofficial expert. Even the most reluctant follower of team games can become an expert when our national sides are playing, particularly in World Cup competitions!

This powerful cultural positioning of games is reflected by their prominence within school curricula. Historically, public schools championed games for their character building qualities and the adoption of games into the life of all schools, resulted in their own special place on the school timetable (McIntosh, 1980). The strong appeal of games has meant they have often been separated from Physical Education and taught by school staff and adults, other than those considered to be 'specialists' (Holt, 1989; Mangan, 1981). With the advent of the National Curriculum, games became located under the banner of Physical Education, however, their powerful allure has remained. Teachers' personal preferences and expertise have reinforced their dominant place on school curricula and have resulted in traditional sporting versions of games becoming a major part of our Physical Education landscape (Capel, 2007; Green, 2008).

Within the National Curriculum for Primary Physical Education, games have continued presented as a medium through which knowledge, understanding and the application of skills can be learnt. Recent iterations have not demanded the teaching of specific sporting forms of games and this approach is underpinned by the accompanying Qualifications Curriculum and Assessment Authority (QCA) Units of Work, which were provided to support primary and secondary teachers in their delivery of the curriculum (QCA, 2000). This more generalist approach to teaching games, however, has been dominated by a series of professional development

programmes, particularly those promoted by National Governing Bodies of Sport, such as the Football Association.

These opportunities for professional development have been created to facilitate the strategic development of a particular sport, focused on the development of technical competence. This undermines the development of a broader understanding and competence of playing games such as that encapsulated by the National Curriculum for Physical Education (Armour and Evans, 2004; Armour and Yelling 2004). When combined with the personal preferences and experiences teachers bring to their conception, planning and teaching of games, such professional development programmes serve to compound the dominance of specific games (Ward, 2011). School inspection reports have identified games teaching as a weakness in Physical Education particularly in respect of fostering a understanding of game play, encapsulated in the second strand of the National Curriculum for Physical Education; Selecting and Applying Skills, Tactics and Compositional Ideas (OFSTED, 2000; OFSTED, 2005; OFSTED 2009). By overly focussing on the acquisition of sport specific skills, rather than developing pupils' understanding of how these skills can be employed tactically, learning within this strand of the National Curriculum has been left to chance. Even when the current trend of employing so called external 'specialists', such as sports coaches, to deliver primary Physical Education lessons, the focus upon skill acquisition dominates pupils' learning experiences (Griggs, 2007; Griggs, 2010; OFSTED, 2009; Ward in press).

Playing games in Physical Education can be a very enjoyable and empowering experience, however, often game play is taught in ways that alienate and exclude, particularly those who struggle with mastering the various motor skills and tactics they demand (Hastie, 2010). For example, pupils may struggle with mastering sending and receiving, using a pass with their hands. Such difficulties are compounded when these pupils are not provided with sufficient time and space to decide when to use these skills and to execute them effectively. Very often game play in Physical Education develops into a place for those pupils who are exposed to particular games outside school, such as in specific sports clubs, to demonstrate their physical prowess and dominance over others. If this is allowed to occur, pupils who are not proficient players can cause play to slow and can be the reason why their team give away scoring opportunities. Such pupils can become the focus of blame for losing and this provides ample justification for others to choose not to involve them in the game. When teaching significant contrasts in knowledge, understanding and skills a class of primary school pupils may present, the importance of developing, progressing and differentiating learning experiences in games becomes very real.

When working with primary teachers, I have often found that many have been disillusioned, confused and frustrated with teaching games. Issues raised by staff have centred on how to make games fair and fun for everyone and how to avoid social conflict. The latter can present a very difficult hurdle when teaching activities that demand high levels of social co-operation. Many teachers are reluctant to teach certain games because they do not know all the 'official' rules. Furthermore, when they have taught particular games, teachers have also expressed difficulty in how to make the link teaching particular game skills with supporting and reinforcing their application in competitive game play (Ward, 2011).

In the case of games such as football, hockey and netball, I have lost count of the number of Physical Education specialists I have heard bemoan their pupils' performances. In such instances, staff have spent ages drilling pupils to pass and keep their distance from each other. Then, when it comes to applying this to a game, the pupils all crowd around the ball and a 'free for all' results and the teacher subsequently resorts to the time old phrases of 'spread out!' and 'get into space!'. This works for all of three seconds and then the game resorts to a smaller version, for example, of a historic game of village 'football'. A game which involves hundreds of people, many of whom never touch the ball and any tactical challenge is often indiscernible.

Issues involved in the teaching of games exposes competing conceptualisations of 'Sport' and 'Physical Education' and the very powerful relationships that exist between them (Capel, 2007). A helpful analogy of the sun and earth, used by Morley et al (2007) can explain the symbiotic relationship which exists between these concepts. In their example, the sun is replaced with Sport, providing the main source of subject content from which Physical Education, the earth, draws. This intense relationship is very evident in games teaching, creating and fuelling tension between our two solar concepts. At the extreme of one side of this debate there exists a belief that the aim of Physical Education should be to develop pupils who are competent at playing sporting versions of games, where afterschool clubs and competitions become a natural progression for this expertise. Such an approach is dominated by teachers' personal immersion in particular game cultures. Individual predispositions to particular sporting versions of games, underpinned by deep pools of specific terminology, frame personal understanding of these games and come to dominate pedagogical practice (Capel, 2007; Penney, 2000). Teachers who have excelled at playing football, for example, may choose to use this game as a curricula activity. They then attempt to reproduce versions of themselves within their class, using Physical Education lessons as a vehicle to develop the school football team. Such an approach becomes a significant issue when delivering the Physical Education curriculum, particularly for pupils who do not compare well to such narrow, performance dominated success criteria (Capel, 2007).

In contrast to this view, there exists a belief that the pedagogical focus of games teaching should be the development of pupils' knowledge and understanding of the interrelationships between skills and tactics, within and across different types of games (Kirk, 2005). Inherent features of such an approach include fostering pupils through the creation of their own games, providing opportunities to develop skills which are needed to play a variety of games and teaching the principles and practice of applying these skills tactically. This requires the radical adaptation of sporting versions of games to meet pupils' specific learning needs. Teaching games in this way has lead to the emergence of a number of game-based pedagogic models, examples of these include Teaching Games for Understanding (TGfU) (Bunker and Thorpe, 1982), Tactical Games Model (Griffin and Sheehy, 2004) and the Play Practice Model (Lauder, 2001), to name but a few. These approaches to learning provide a direct contrast with more traditional technically based instructional models. In these behaviourist approaches, learning is seen as a direct function of acquiring a particular behaviour, such as a skill or tactic, directly from the teacher. However, in game-based pedagogical models pupils are encouraged for example, to explore and discuss with their peers which skills and tactics are key to their game play and should thus

become a focus for their learning. In order for the teacher to develop a rationale for employing and developing a working command of these various game-based pedagogical models, their different approaches to learning and subject content requires analysis.

Games can provide excellent opportunities for pupils to work co-operatively and competitively. They can also aid an understanding of the importance of fair play, decision making, planning and learning through reflection and feedback (Griffin et. al., 2004; 2005; Light, 2005). Unfortunately, the terminology, numbers of players, numerous skills and complicated tactics, can make games seem dauntingly complex and difficult to teach (Forrest et. al., 2006). The aim of this chapter is to demystify games and provide a framework from which the primary school teacher can understand the underlying building blocks of games and how these can be taught progressively to enable all children to enjoy a fundamental part of their national culture.

Learning to Play Games

Numerous resources exist in the form of lesson plans, ‘skills and drills’ type coaching books and task cards to support games teaching in Physical Education. These can be helpful to develop knowledge, such as how to help pupils to practice specific skills for particular games. However, they rarely offer a ‘one stop shop’ for developing sound pedagogical practice that will enable pupils to benefit from the educational opportunities games can offer. The use of these types of resources as substitutes for lesson plans narrows learning experiences to the acquisition of skills and omits the Selecting and Applying Skills, Tactics strand of the National Curriculum for Physical Education. Alongside this plethora of coaching resources, sits a similarly large amount of literature which supports the development and application of pedagogic models which can be used to create more holistic learning experiences in games. However, the existence of different pedagogical models of games teaching is an indicator of the debate which exists between supporters of these models as to what is learned and how something is learned in games.

One feature of this debate centres on the importance of a game-specific approach. In such pedagogical models playing specific sporting forms of games is deemed crucial because such an approach believes skills, decisions and tactics form a specific body of fundamental knowledge that are peculiar to that specific game (French and Thomas, 1987). Teaching pupils to play rounders is believed to be a vital part of their games education, for example, because the game demands specific skills, created by its rules and equipment, which are not found in other games. In contrast, the other side of the debate supports the proposition that there is a high level of transfer between some games due to common tactical components (Mitchell and Oslin, 1999). Proponents of this approach seek to make connections, for example, between what pupils learn by playing football and hockey, because these games present the learner with very similar tactical problems.

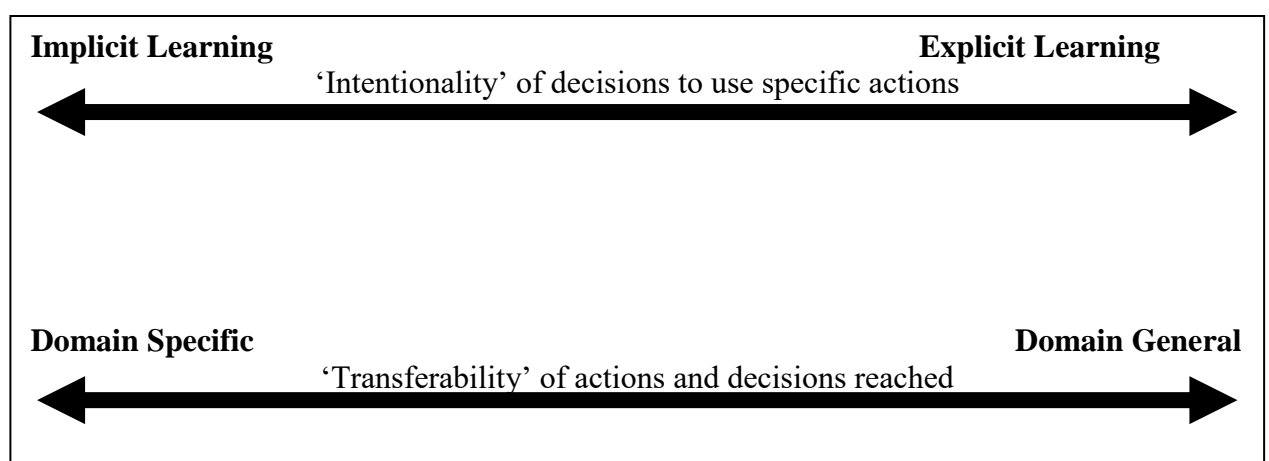
Pedagogical models also differ in their theoretical approach to learning. When it is believed actions in games are considered incidental, such as when to shoot or when to pass in netball, this is considered an *implicit* approach to learning i.e. there are no ‘if-so-then’ decisions to be made. In such an approach skills and decisions are learnt

through generating experience of the game and result in ‘non-verbaliseable’ individual decisions (McPherson and Thomas, 1989; Rabb, 2007). However, if actions are taught by isolating a specific situation which demands the use of specific skills an *explicit* learning is adopted. For example, teaching pupils where to position themselves to support another player in order to provide a passing option and exploit the space available, such a standing square and wide in netball. A result of such an approach to teaching will be the ability of pupils to produce a ‘verbaliseable’ knowledge of specific actions to specific situations (Masters, 2000; Rabb, 2007).

In addition to this difference in how pedagogic models approach learning, they also differ in how the content to be taught is viewed. *Domain specific* models apply to a specific sporting game form and *domain general* approaches seek to make connections between different games and different situations. A domain specific approach focuses on the specificity of an action to a particular situation, for example the use of a particular passing technique, such as the push pass in hockey. If this type of approach is adopted, actions are considered to be only tentatively related to situations in other games. However, in domain general pedagogical approaches, transferability between skills and tactics is considered possible, despite varying specific situational conditions such as the equipment used or numbers of players involved (Rabb, 2007). For example, if a net game is being played where the aim is to hit an object into spaces left by an opponent; it is believed this tactical expertise can be applied to different games such as rounders and cricket.

Greater clarity can be achieved when these different approaches are viewed as continuums. This can be seen in Figure 12. Implicit learning and explicit learning form a line of intentionality of the decision to use particular actions, and domain general and domain specific form a line of transferability of actions and decisions reached in games (Rabb, 2007).

Figure 12: Locating a pedagogical approach to games teaching using the continuums of ‘Intentionality’ and ‘Transferability’ (Adapted from Rabb, 2007)



Analysing pedagogical approaches to games in this way enables the teacher to develop a clear rationale for their chosen approach (Rabb, 2007). The predominant pedagogical model for teaching games in the UK was developed by Bunker and Thorpe in 1982 and is called Teaching Games for Understanding (TGfU). Analysing

their model using Figure 12 reveals that it is based on a *domain general* and *explicit* approach to learning. The pedagogical premise of TGfU is the belief that there is a high degree of transfer of skills and decisions between games and that particular, ‘if-so-then’ decisions can be taught and employed to aid pupils’ application of skills to solve particular tactical problems which games can present. For example, when attempting to move the ball up the court in basketball, if a defender blocks your way and a supporting team mate is in a passable attacking position, then a pass is an appropriate response. In TGfU connections are sought between similar decisions that may have to be made in comparable situations in other games such as basketball, hockey and football.

Game-based pedagogical models such as TGfU are commonly associated with secondary level Physical Education, primarily because they have developed predominantly from research based on their use with university and secondary aged pupils. Results of this research and theoretical debates have also been limited to specialist spheres of interest, and with little literature specifically aimed at primary school practitioners. However, by adopting their structure they can provide the primary practitioner with a pedagogical guide to create learning experiences which include all strands of the National Curriculum for Physical Education.

Developing Skills and Learning to Play Games

It is commonly believed that in order to play games meaningfully pupils must be competent in a number of basic skills and firmly established rationales exist highlighting the importance for primary aged children to learn basic movement patterns. The latter are often referred to as fundamental movement skills (FMS) (Gallahue and Ozmun, 1995; Jess et al, 2004). FMS have been conceptualised and categorised by various authors and providers of professional development within the education and sporting worlds (STEPS Professional Development and Consultancy, 2004; Foreman and Bradshaw, 2009). This has served to cause some confusion over terminology, however, using Gallahue and Donnelly’s (2003) definition, FMS broadly can be categorised into three groups; Stability, Locomotor and Manipulation:

Figure 13: Fundamental Movement Skills (Gallahue and Donnelly, 2003)

FMS Category	Examples of other similar terminology	Definition
Stability	Balance, Body management	Balancing the body in stillness and in motion.
Locomotor	Agility	Transporting the body in any direction.
Manipulation	Coordination, Object Control	Controlling implements or objects with the hands or feet e.g. bats, balls hoops, etc.

As with all concepts and definitions, some skills fit neatly into a category and can be easily recognisable, for example, a four point balance in gymnastics is quite clearly a stability skill. However, a significant number of skills require the mover to be competent in a combination of two or all three FMS. For example, hopping forwards

is a locomotor skill as it is about transporting the body, however, it also requires stability because the base of support has been made smaller (one foot). By keeping the centre of gravity as close to this base of support as possible, stability is achieved by moving the body to the side over the hopping leg and by using the non-hopping leg to counter balance the moving body weight.

It is argued that FMS are vital to becoming proficient in activities which require the application and execution of complex movements and skills, such as those demanded by games activities (Okley and Booth, 2004; van Beurden et. al., 2002). Hence, the rise in professional development opportunities aimed at developing and understanding of these categories of FMS. However, if FMS are developed in isolation, the ability to apply them to become proficient in games activities remains limited. This is because an understanding of how to apply these skills in an ever-changing perceptual and decision making environment created by games, will not have been taught (Belka, 2004; Curtner-Smith, 1996; Capel, 2000). Later in the chapter I highlight some of the core skills required in games activities and link these to the FMS framework provided by Gallahue and Donnelly (2003). The aim of this is to help teachers understand the basic building blocks of these skills and where they may need to focus some specific work if pupils experience difficulty or are limited in their proficiency in some core game skills.

Pupils often long to play a game, however, they are regularly required to practice skills out of their game context, which is less meaningful and can be very uninspiring (Dyson, et. al., 2004). In contrast, playing games can be highly motivating and is an important part of a Physical Education curriculum (Giménez *et al.*, 2009; Griffin et. al., 1997; Thorpe et. al., 1984). I explain later in this chapter how, even with only basic skill proficiency, pupils can enjoy the pleasure of playing games purposefully. Playing games gives pupils significance to their development of skilfulness and this motivation can support continued effort to develop competence and may form the basis of a desire to play games in later life (Hopper et. al., 2000). As we have seen, the National Curriculum for Physical Education at Key Stages 1 and 2, requires teachers to plan and deliver learning experiences where pupils not only have the opportunity to acquire and develop skills, but also the chance to select and apply these skills within the context of game play. Pedagogical approaches to provide such experiences will be examined in the next section.

Teaching Skills and their Application to Game Play

Pedagogical models such as TGfU focus learning through a conceptual approach, underpinned by constructivist learning theories, in particular Situated Learning Theory (Lave and Wenger, 1991). Learning is viewed as a result of both teaching and the context and culture in which the learning activity takes place. Knowledge is considered to be socially constructed and a result of direct involvement in an activity. In the case of games education, the teacher facilitates a community of practice focussed upon developing knowledge, understanding and skills as a 'beginner'. As the latter develop, pupils become a fully engaged member of the community of practice (Rovegno and Dolly, 2006).

The potential benefits of increased motivation, transfer of learning and improved decision making, which TGfU purports to develop are located within a well defined

landscape of psychological theories (Oslin and Mitchell, 2007). For example, the Schema Theory of motor learning and Action Systems Theory have been used to explain the conceptual transfer of principles underlying game play by learners, even when constraints such as those imposed by adapted games are imposed (Piggott, 1982; Hanford 1997). Using these theoretical frameworks, the pedagogical effectiveness of game-based approaches in comparison to more traditional technical based instructional models have been researched. However, evidence of the superiority of one approach over the other, in regard to improving game performance, has been inconclusive (Gréhaigne, et. al., 2005). These instructional models such as TGfU have attracted international attention and are presented as an innovation in games learning (Griffin et al., 2005; Light, 2005). Nevertheless, recent critical review has highlighted, that far from being a panacea for future games teaching, greater evidence based research is required. This needs to be grounded in examining how and what students learn while engaged in game based learning across the psychomotor, cognitive and affective domains (Dyson et. al., 2004; Griffin et. al., 2005; Pope, 2005; Wright et. al., 2005). In an attempt to address this required analysis, Giménez et al. (2010) conclude that the overriding feature of pedagogical interventions such as TGfU are the positive influences they can have on the affective and social areas of learning, in addition to helping pupils to learn to make more effective decisions when playing. Despite the need for further evidence on their effectiveness, these pedagogical approaches place the student at the centre of the learning experience and help develop 'reflective' and 'self-directed' learners. By moving instruction beyond developing technical competence, emphasis is placed upon on development across psychomotor, cognitive and social learning domains. Their focus on the process of learning, reflecting and evaluating also means they provide excellent opportunities for authentic assessment (Kirk, 2005).

Specifically aimed at primary school teachers, Mauldon and Redfern (1981) proposed a model of teaching games that encourages the use of problem solving approaches, which utilise game-like situations to emphasise tactical situations. In their approach, rather than presenting skills by their use in specific types of games, they are grouped by their common usage such as sending, receiving and travelling with objects. We see this approach in resources aimed at, primary school teachers, such as those produced by the Youth Sport Trust in the 1990s in their 'TOP Play' and 'TOP Games' cards. Mauldon and Redfern (1981) encourage teachers to draw connections between skills and games, promoting awareness of similarities and differences between games by categorising them into groups based on similar rule types. For example, games in which the primary challenge is to hit a target in as least shots as possible, or as accurately as possible with singular attempts, are grouped into a Target Games category.

Using a similar basis of problem solving based pedagogy, TGfU highlights the motivational aspect for learners of playing games rather than the traditional practicing of skills. Bunker and Thorpe (1982) argue that games are the ideal context in which to develop skills and can be conditioned to highlight specific tactical situations. For example, playing a 3 v 1, keep ball game, to develop an understanding of which skills and tactics are needed to maintain possession. They therefore argue that playing of games should become the main focus of learning. Their framework of games education includes developing an appreciation amongst learners of how rules shape games, for example, rules which demand players to invade another team's space to

score, such as in football and rugby. The promotion of tactical awareness and decision making is encouraged by helping learners to recognise ‘cues’ to select appropriate responses and predict possible outcomes; for example, recognising key positions to support a fellow player in possession of the ball who is being pressured by an opponent. In direct contrast to technical models of games teaching, the TGfU model supports the view that this tactical application of skills precedes the acquisition and performance competence of specific game skills. This is not to say the model ignores the importance of developing specific technical skills. The significance of being able to perform technical skills proficiently is provided meaning through the learner developing an understanding of their tactical importance (Ward and Griggs, 2011).

Limitations of Game Centred Instructional Models

Game-based instructional models such as TGfU demand considerable pedagogical skill and a significant breadth and depth of knowledge and understanding of games (Light and Georgakis, 2005). More specifically these game-based approaches demand the ability to; develop and ask appropriate questions at the appropriate learning moment, determine and select appropriate game forms to develop understanding of the game; select or create modified games that truly parallel the actual game (Chandler, 1996, Light and Georgakis, 2005, Howarth, 2005, Turner, 2005). Underlining this pedagogical expertise is the necessity to initiate and manage dialogue between pupils and the teacher and amongst pupils themselves. Advocates for game centred approaches, argue this managed dialogue is their fundamental strength (Turner, 2005). However, these pedagogical skills and the demand for a broad and deep knowledge and understanding of games, pose particular issues for non-specialist and inexperienced teachers (Forrest et. al., 2006). Without such pedagogical knowledge and skills, learning activities and educational dialogue can become closed and shallow, reverting to teacher centred, behaviourist approaches; thus the pedagogical strength of these instructional models is devalued (Forrest, et al 2006; Gréhaigne, et. al., 2005; Howarth, 2005; Piltz, 2004). For example, teachers can resort to asking closed questions in discussion because they are unsure of how to manage dialogue to link what the pupils may be doing and saying, with what the teacher wants to teach or indeed, with what needs to be taught.

However, more fundamentally challenging for the teacher is the ambiguity in the conceptual frameworks that form the basis of these game centred instructional models. These frameworks form the core content and structure upon which understanding of the relationship between skills, tactics and principles of play is developed. Griffin and Sheehy (2004) present a conceptual framework for problem solving in games which attempts to layer tactical problems with levels of complexity. Rather than pursuing the relationships which can be drawn between the skills that need to be executed to exploit these tactics, the emphasis returns to an instructional focus.

Forrest et al (2006) have created a framework of attacking and defensive principles which attempts to simplify the tactical solutions to games, however, these are not linked to skills. A framework which does attempt to provide a conceptual hierarchy of principles, skills and strategies has been constructed by Butler (1997) and situated within a TGfU conceptual framework by Mandigo, et al (2007). In a similar vein, Mitchell et al (2006) present a series of frameworks based upon the tactical problems


of scoring and preventing scoring, created by specific game based sports. Within this structure connections are then made between the tactical problems and ‘off-the-ball’ movements and ‘on-the-ball’ skills. Using association football, Russell (1995) presents ‘principles of play’ in attacking, defending and the transition between these phases of play. O’Leary (2008) attempts to connect these principles of play with examples of appropriate individual skills in basketball.

These various frameworks do aid a conceptual understanding of games activities, tactics and skills. However, an absence of a coherent rationale and breadth across games activities is clearly evident. This is compounded by ambiguous terminology and indistinct relationships between principles, tactics and skills. For example, Mitchell et al (2006) focuses on ‘tactical problems’, while Forrest et al (2006) propose attacking and defending ‘principles’. O’Leary (2008) discusses ‘principles of play’, which is contrasted by Butler (1997), who conceptualises ‘main intensions of a game’ and ‘Offensive and Defensive Strategies’. O’ Leary (2008: p19) establishes ‘passing ahead’ as a principle of play, with the ‘appropriate skills’ of ‘various passes and pivoting’, however, a definition of a principle of play is not clearly established and ‘passing ahead’ could be considered both a tactic and a skill. In the next section of the chapter I will present a series of frameworks which serve to generate clarity out of confusing terminology and describe clear relationships between principles, skills and tactics. This is achieved by examining the specific tactical purpose of skills and their relationship with solving the tactical problems posed by the rules and equipment of games. The tactical solutions to these problems are linked with the overarching strategies that characterise the main purpose of these tactics. However, before we examine this further, it is important to begin to understand how games have been conceptualised by previous editions of the National Curriculum for Physical Education, as it is on this basis that my frameworks are based.

Understanding and Teaching Games at Key Stages 1 and 2

There are numerous ways of categorising games, ask any upper primary school children to create their own categories of games and they will propose all sorts of topologies in which to locate the myriad of games they have played or have see being played. An agreed approach to classifying games is to look at the tactical problems created by their specific rules, equipment and playing areas (Bunker and Thorpe, 1982; Thorpe, Bunker and Almond, 1986). This approach has also been adopted within different versions of the National Curriculum for Physical Education and provides an excellent basis to aid our understanding and in turn supports our teaching and learning.

Figure 14: A categorisation of Games based upon their tactical problems

Complexity 	Game Category	Tactical Problems	
	Target Games <i>e.g. Bowls, Golf.</i>	Choosing a particular action to send an object accurately and consistently at a particular target.	
	Net and Wall Games <i>e.g. Tennis, Badminton, Squash.</i>	Attacking/Scoring	Defending
		Setting up an attack by creating space on the opponent's side of the net	Limiting the space available by choosing a defensible position
	Striking and Fielding Games <i>e.g. Rounders, Cricket, Softball.</i>	Winning the point by sending into space or forcing an error	Making an opponent defend by setting up an attack by creating space on the opponent's side of the net (Attack is a form of defence).
		Attacking/Scoring	Preventing Scoring
	Invasion Games <i>e.g. Netball, Hockey, Football, Rugby, Basketball</i>	Sending an object to score as many points as possible	Limiting the points scored and getting batters out
		Attacking/Scoring	Defending
		Transporting an object to scoring positions, in the opposition's area, and scoring	Limiting attacking options and regaining possession

The categorisation presented in Figure 14 illustrates how games develop in their complexity. Because of their rules, which stipulate a limited number of players and constrain the use of specific actions to achieve simple outcomes, target games demand less tactically sophisticated decisions to be reached. In contrast the rules of invasion games create a field of play which permit a number of players to perform a plethora of skills and as such a significant number of decisions to be reached. Obviously, there are many players of specific games who would argue against such a broad statement about target games, such as proponents of Curling or Crown Green Bowling. Despite being target games, these examples are tactically complex. However, such debate is distracting and ignores the broad understanding of games which the National Curriculum has aimed to develop.

The absence of identified specific sports in Figure 14, serves to illustrate the adaptability of the game form. This enables the teacher and pupils to create and adapt games, based upon chosen tactical problems, rather than being wedded to the specific sporting versions which are traditionally taught in primary schools. Planning the place of games in the curriculum in this way can serve to develop a greater understanding of the symbiotic relationship between rules, skills and tactics (Hastie, 2010). This is not to say that traditional sporting versions of games should not be included in the curriculum. However, in this pedagogical approach the sporting forms of games serve as a means for achieving specialised performance. For example, rather than attempting to play a 7 v 7 game, employing all the rules stipulated by the International Rugby Board, smaller adapted games are created. In this instance, a 4 v 2 TAG rugby game can be devised, based upon simple rules, which supports consistent success in appropriate 'rugby' decision making and execution of 'rugby' skills.

As pupils develop, the game can be continuously modified into a more specialised sport specific form. This pedagogical approach to teaching games is addressed later in the chapter.

Conceptualising games on the basis of the tactical problems created by the interrelationship between their rules and equipment, enables further examination of each game category. From this analysis we can understand more about their structure and the interplay between skills and tactics. On the basis of the game categories presented in Figure 14 and by adapting current conceptual thinking, I have presented in Figures 15, 16 and 17, a set of conceptual frameworks for net and wall, striking and fielding and invasion games. These frameworks are constructed on five key concepts; 'principles of play', 'tactical problems', 'tactical solutions', 'on-the-ball skills' and 'off-the-ball skills'. 'Principles of play' form the overarching strategies which give meaning to the primary purposes of the 'tactical solutions' to the 'tactical problems' posed by a game, irrespective of the strengths and weaknesses of an opponent. 'Tactical problems' are created by the general rules and equipment which distinguish each games category. Rather than focussing on specialised skills relating to sporting versions of games, the 'On-the-ball skills' and 'Off-the-ball skills' relate to the key purpose or outcome of the skill. These skills are applied under pressure exerted by opponents, to enact the 'tactical solutions' (den Duyn, 1997; Magill, 2004). 'Off-the-ball skills' are skills which players, not in possession of the ball, can employ such as supporting a team mate who is dribbling the ball in a game of football. 'On-the-ball skills' are techniques which players, in possession of the ball, employ, such as hitting the ball short to avoid a particular fielder in a game of rounders. In defensive phases of play in invasion games, 'On-the-ball' skills also relate to those applied when close to the ball, such as closing down a player and trying to regain possession through a tackle. These frameworks do not claim to be a completely inclusive for all the distinct codified versions of invasion, net and wall or striking and fielding games. Instead, they attempt to provide the teacher with a clear and concise overview of the relationship between core skills and their tactical application across the main categories of games. This understanding can then be applied to curricula planning and the creation of learning experiences within games lessons, example of how this can be achieved are presented later in the chapter.

Target games have not been explored in this way because they do not present significant complexity in their overarching structure. It is the specific sporting versions of target games which present difficulty in the execution of the skills need to play them, rather than any major complexity in the relationship between these skills and their associated tactical problems and principles of play. For example in tri-golf, a game specifically devised by the Golf Foundation for primary pupils, the aim is to use one of two clubs to hit a ball as close to a target as possible, or in as fewer shots as possible. This does not present the teacher or pupil with any major decision making. The difficulty lies in the performance of the specific skills to use the two clubs i.e. putting or chipping.

Developing FMS through Games Activities

The skills employed in playing games can be categorised in a similar manner to the classification of games based upon the tactical problems they present. Skills can be

Figure 15: Principles of Play, Tactical Problems and Skills in Net Games

Principles of Play	Tactical problem: Scoring	Off-the-ball/shuttle movements	On-the-ball/shuttle movements
Using depth and/or width to manoeuvre opponent(s)	Tactical Solutions: Setting up an attack by creating space on the opponent's side of the net		<p>Sending the ball/shuttle deep – using court depth</p> <p>Sending the ball/shuttle wide – using court width</p> <p>Sending the ball/shuttle deep and wide – using court depth and width</p> <p>Sending the ball/shuttle short and wide– using court depth and width</p>
	Winning the point	<p>Dominating space in own court by limiting the returning options of the opponent</p> <p>e.g. following deep shots in tennis with a move close to the net</p>	<p>Sending the ball/shuttle into the created space</p> <p>Attacking weakly returned shots e.g. using a smash or volley</p>
	Tactical problem: Scoring Preventing	Off-the-ball/shuttle movements	On-the-ball/shuttle movements
Using depth and/or width to manoeuvre opponent(s)	Tactical Solutions: Defending own side of net		<p>Sending the ball/shuttle deep – using court depth</p> <p>Sending the ball/shuttle wide – using court width</p> <p>Sending the ball/shuttle deep and wide – using court depth and width</p>

	Defending against an attack	Recovery to the best position to defend the whole court	<p>Returning the smash/drop shot - getting racket to the ball/ shuttle</p> <p>Regaining the attack by:</p> <p>Sending the ball/shuttle deep – using court depth</p> <p>Sending the ball/shuttle wide – using court width</p> <p>Sending the ball/shuttle deep and wide – using court depth and width</p> <p>Sending the ball/shuttle short and wide– using court depth and width</p>
--	--------------------------------	---	--

(Adapted from; Butler, 1997 and Mitchell, et al, 2006)

Figure 16: Principles of Play, Tactical Problems and Skills in Striking and Fielding Games

Principles of Play	Tactical problem: Scoring as many points as possible	Off-the-ball movements Core Examples:	On-the-ball skills Core Examples:
Sending into space	Core Tactical Solutions: Sending/hitting an object into the field to make it as difficult as possible for the fielding team retrieve. Once sent/hit, deciding whether to attempt to score and/or judging how much could be scored. Defending the target which the bowler is aiming at (e.g. wickets in cricket)	Running as quickly as possible to score. Judging where the ball is in the field and how quickly it could be retrieved. Keeping track of how quickly the ball is being retrieved.	<u>Sending/hitting skills</u> with the intention for it to go in a specific; direction, distance, height/flight: <ul style="list-style-type: none"> • Throwing overarm/underarm, hitting a stationary object • hitting a moving object
Scoring			
Staying in			
	Tactical problem: Preventing Scoring - Limiting points scored and getting batters out	Off-the-ball movements Core Examples:	On-the-ball skills Core Examples:
Covering space	Core Tactical Solutions: Marking the fielding space to limit the sending/hitting options of the batter by covering; width and depth.	Intercepting sent/hit objects Retrieving the sent/hit object as quickly as possible to limit the number of runs scored	Stopping or catching sent/hit objects which are travelling in the air, along the floor or bouncing; at different; speeds, flight paths and directions. Sending objects – rolling, throwing; underarm, overarm as accurately and as quickly as possible.
Limiting scoring	Choosing which fielding base/wicket/post to return		

Getting the batter out	<p>objects to with the intention to; prevent further runs being scored and/or attempt to get the batter out whilst they are running.</p> <p>If the game involves bowling: Delivering the ball to the batter to make it difficult for them to hit and/or to force them to make a mistake; miss the ball, miss-hit the ball, provide an easy catch, block their wickets (LBW Cricket).</p>	<p>Backing-up team members in case the sent object is sent too short or too far</p> <p>Covering the fielding base/wickets/post/base when sent objects are being returned</p>	<p>Bowling with accuracy e.g. using line and length to force the batter to make mistakes or hit towards a particular part of the field.</p>
------------------------	---	--	---

(Adapted from; Butler, 1997 and Mitchell, et al, 2006)

Figure 17: Principles of Play, Tactical Problems and Skills in Invasion Games

Principles of play		Tactical problems: <u>Scoring:</u> Transporting the ball to scoring positions and scoring	Off-the-ball skills Core Examples:	On-the-ball skills Core Examples:
Attacking				
Supporting	<u>Transition</u> (moving from defence to attack)	Tactical solutions: Maintaining possession of the ball	Supporting the player in possession in positions which are: <ul style="list-style-type: none">passable (low risk of losing possession)attacking (towards opposition's territory or goal)	<ul style="list-style-type: none">On the ball controlPassing
Creating Space		Moving the ball into attacking/scoring positions	Getting 'free and open' away from defenders: <ul style="list-style-type: none">fakingdummyingturningcutting	<ul style="list-style-type: none">Passing ahead of supporting playersTravelling with the ballDrawing in defendersFaking/dummying/turningSending the ball to wide and/or deep to supporting players
Penetration and Scoring		Attacking the goal and scoring	<ul style="list-style-type: none">Moving into space between and behind defenders e.g. timed runsActing as a target player(s) for player (s) on the ball	<ul style="list-style-type: none">Travelling with the ballCrossing from widePassing/travelling between/behind defenceShooting
Defending		Tactical problems: <u>Preventing</u>	Off-the-ball skills Core Examples:	On-the-ball skills Core Examples:

		Scoring: Limiting attacking options and regaining possession		
Denying Space and Applying Pressure	<u>Transition</u> (moving from attack to defence)	Tactical solutions: Defending space	<ul style="list-style-type: none"> • Covering space as a defensive unit • Covering undefended attacking space 	<ul style="list-style-type: none"> • Marking opponents entering your space • Intercepting
		Defending attacking players	<ul style="list-style-type: none"> • Delaying /blocking • Positioning between the goal and attacker 	<ul style="list-style-type: none"> • Marking opponents • Closing down
		Regaining possession	<ul style="list-style-type: none"> • Closing down 	<ul style="list-style-type: none"> • Intercepting • Tackling • Clearing the ball away from potential scoring areas
		Defending the goal	<ul style="list-style-type: none"> • Positioning to stop a shot • Closing down 	<ul style="list-style-type: none"> • Shot stopping • Distributing


(Adapted from; Butler, 1997; Mitchell, et al, 2006; O’Leary, 2008; Russell, 1995)

seen as the tools to solve these tactical problems, and classifying them in this way enables the teacher to make a meaningful connection between skill development and the progressive learning of games; from simple tactical focused games, to more complex sport specific game forms. Figure 18 establishes five core skill categories which can be applied to the tactical problems posed by different games. Each skill category provides examples of recognised game skills, how these relate to the categories of FMS outlined previously in the chapter. Examples are also provided to illustrate how simple forms of these skills can be applied to simple tactical problems. The table also illustrates how these skills can be developed and refined into more specialised skills and applied to more complex sport specific game forms are also provided.

It is important to teach specific sport skills, however, consideration must be made to how pupils can apply these skills to solve tactical problems. Teaching complex skills and playing complex games too early can compound difficulties in performing the skill and applying the skill meaningfully i.e. with tactical significance. It is illogical to teach a complex and difficult skill such as passing and dribbling a hockey ball, if the pupils have yet to master the basics of sending and receiving with more simple equipment and have not grasped and developed consistent proficiency in solving the core tactical problems posed by a basic invasion game. Such problems can lead to significant issues with motivation and social cohesion because pupils can become disheartened with themselves and others when poor skills and decisions cause the game to break down. This highlights the importance of ensuring the correct level of challenge is reached for all pupils, so that games are created or adapted to meet their learning needs. In games teaching it is vital that pupils without certain proficiency in skills, or their tactical application, are not blamed for unsuccessful team play, or that highly competent pupils do not dominate game play or feel they are being held back.

In order to avoid such situations games can be created and adapted to accommodate pupil proficiencies in the execution and application of skills to game play. For example, even the most proficient bowlers, hitters, throwers and catchers can learn to refine, adapt and apply these skills in an increasingly tactical manner, without having to play an officially recognised game of cricket. In a similar vein, pupils who are not so proficient in sending and receiving skills can still learn to develop and apply these skills without having to spend every lesson practicing the skills in isolated, drill-like practices. Differentiation of learning activities to accommodate different stages in pupil development can be achieved through the manipulation of the Space, Task, Equipment and People (STEP) dimensions of a game and is commonly known as 'conditioning'. The STEP principle is a framework of differentiation which can be found on teaching resources such as those produced by the Youth Sport Trust in 'TOP Play' and TOP Games'. By adjusting the STEP dimensions of a game the complexity of the skills used and the conditions which require the application of these skills can be adjusted to match the level of challenge presented to the learning needs of all pupils (Lambert 2010). However, it is important to adapt games not only to accommodate different pupil proficiencies in on-the-ball and off-the-ball skills but also to provide a conceptual scaffold which can support pupils in navigating the complex relationships between these skills and the tactical solutions which can be adopted to overcome the tactical problems that games present. The adaptation of the STEP dimensions of the game should thus provide regular and consistent opportunities for pupils to have the space and time to execute the skill, in addition, to

Figure 18: Core Game Skills

Core on-the-ball and off-the-ball skills	Fundamental Movement Skills and Tactical Significance	Specialisation and Progressive Complexity 
Travelling (off - the-ball) <i>e.g. running, jumping, turning, side stepping</i>	<u>Locomotor Skills</u> Essential, but often ignored or untaught. Crucial in enabling pupils to move effectively on their own or as part of a team. Enable the player to move into valuable attacking and defending positions.	<u>Locomotor Skills</u> - Running, sidestepping, running and jumping, running backwards, running and jumping, running and turning, dodging, running and feinting. <i>Complex application e.g. running to retrieve an object in a strike/field game, moving to support a player dribbling a ball, getting free from a defender.</i>
Sending (on-the-ball) <i>e.g. rolling, throwing, kicking, striking, shooting, 'passing'</i>	<u>Combined Manipulative and Locomotor Skills</u> Key to all games involving the movement of objects. Take various forms, their complexity depending on the equipment used. The further away from the body the object to be sent is, the more complex and difficult the skill e.g. sending a ball with the hands is less complex than hitting to send a ball in tennis, or shooting a ball with a hockey stick.	<u>Manipulation</u> – from a stable position, throwing, rolling, striking with a hand, striking with feet, striking with equipment. <i>e.g. throwing a bean bag to score in a strike/field game, hitting a stationary ball in a strike/field game, hitting a bowled ball such as in rounders or cricket.</i> <u>Manipulation and Locomotor</u> – throwing, rolling, striking, shooting and passing on the move. <i>Complex application e.g. running and throwing to field a bean bag in a strike/field game, travelling with and shooting to score in an invasion game, dribbling and passing on the move in basketball, hitting a tennis ball into space into an opponent's court, dribbling and passing on the move in hockey.</i>
Travelling (on-the-ball) <i>e.g. dribbling with feet or equipment</i>	<u>Combined Locomotor and Manipulative Skills</u> Enable the player to manoeuvre with the object into attacking or away from defending positions.	<u>Locomotor and Manipulation Skills</u> Dribbling with hands, dribbling with a small handled bat/racket, dribbling with feet, dribbling with a long handled bat/stick. <i>e.g. dribbling with a basketball, dribbling a football, dribbling with hockey stick and ball.</i>
Receiving (on-the-ball)	<u>Combined Manipulative and Locomotor Skills</u> Enable the player to gain control of an object, from which they can then	<u>Manipulation</u> – from a stable position, receiving an object which has a consistent flight and speed. <i>e.g. trapping a ball rolled along the floor with different body parts.</i> <u>Manipulation and Locomotor</u> – moving to catch a ball with varying

<i>e.g. Stopping, blocking, trapping, controlling, catching</i>	decide to travel, send or pass, depending on the rules of the game.	flight and speed. <i>Complex application e.g. moving to stop or catch a ball in cricket, moving to catch a ball in netball</i>
<p>Passing (on-the-ball)</p> <i>e.g. using a chest pass to give the ball to a supporting team mate</i>	<p><u>Combined Manipulative and Locomotor Skills</u></p> <p>Often considered a sending skill or a tactical solution to invasion games. Owing to the significance of passing in the majority of games, it has been identified here as a separate core skill. Passing is complex, because it involves two people; one to send and one to receive. When a defender is involved this makes it far more complex and game forms need to be created to allow pupils the time to develop competence in executing the skill. Passing also involves a considerable amount of decision making and games forms need to be created to allow pupils the time to make successful choices and which can be positively and regularly reinforced.</p>	<p><u>Manipulation and Locomotor Skills –</u></p> <p>Sender – sending from stationary or while on the move, accurately to a team mate. Receiver – moving into a position and signally to indicate being ready to receive. e.g. <i>Complex application</i> <u>Sender</u> Choosing to pass a ball which can not be easily intercepted by a defender, just ahead of a supporting player to enable them to move on to the ball in the direction of the goal. This team mate should be away from any defenders likely to prevent their next attacking move and be positioned to attack the defenders' goal. e.g. <i>Complex application</i> <u>Receiver</u> Choosing to move to a position where the sender can move the ball accurately, without a defender moving between to intercept.</p>

encouraging them to select appropriate skills to seek successful tactical solutions. How this can be achieved will now be explored.

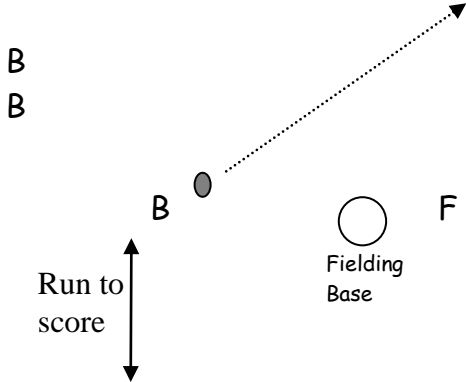
Teaching the relationships between Skills and Tactical Solutions through Conditioned Games

Figure 19 illustrates a conditioned game, adapted from a ‘core task’ which can be found in the QCA Unit of Work for striking and fielding games for Year 1 (QCA, 2000). Core tasks can be found on all QCA schemes and provide the teacher with a conditioned game through which it is possible to teach both the game skills and their tactical application. Frapwell (2010) supports the use of core tasks within the teaching and learning process as they present the teacher with a valuable strategy to enable their pupils to learn and also engage in a meaningful performance context. This is not to say core tasks are the answer to effective games teaching, rather that they provide a useful illustration of how the STEP dimensions of a game can be manipulated to create sufficient time and space for pupils select and apply specific skills when they are ‘on’ and ‘off’ the ball to achieve particular tactical solutions to the tactical problems the game presents. Conditioned games also demonstrate how altering the STEP dimensions can increase or decrease the level of challenge presented to the players. Examples of how the conditions can be change to achieve the latter are presented in the bottom section of the game presented in Figure 19.

The conditioned game presented in Figure 19 involves four pupils; however, the task could be adapted to include more by adding them to the batting team. Teachers may use this game as a focus to develop specific ‘on-the-ball’ and ‘off-the-ball’ skills and the application of the skills to solutions to a tactical problem and thus demonstrate the relevant principles of play. As with all games, it is the tension that is created between opponents which make them an enjoyable challenge. In the case of this game the tension is between the batting team whose main tactical problem is scoring as many runs as possible. In contrast the main tactical problem for the fielders is to prevent this scoring (see Figure 15). In this game the principles of play are the same whether throwing a bean bag or hitting a bowled ball. When striking, the aim is for the pupil is to send an object with a selected force and in a selected direction away from fielders (principle of play; sending into space), in order to score as many runs as possible (principle of play; scoring) and to avoid being caught out or stumped out (principle of play; staying in). The decisions made by players on how to achieve this are based upon the position of the fielders, the difficulty of the movement of the ball to hit and if relevant, the position of other batters in the field of play. Even pupils at the basic stage of throwing, a bean bag can be introduced and guided through the tactical application of their sending skills.

In order to scaffold learning in this way it is necessary to focus periods of teaching on one particular tactical problem. In the case of the striking and fielding game in Figure 19, this will involve focussed exploration of scoring or preventing scoring, rather than both at the same time. In a unit of work this might involve the progressive development of one or both, but this will depend on the learning needs of the pupils and the learning time available. This does not mean that the other skills involved in the game and their tactical application should be ignored. Indeed, in order to make the game purposeful, pupils will need to adopt roles in opposition and will be using similar or different skills or be involved in making different decisions. However, the

Figure 19: Striking and Fielding Game Core Task – Level 1

<p><u>Play a cricket type game of 3 v 3</u></p> <ul style="list-style-type: none"> • 3 are batters(throwing or striking) and 3 are fielders • Batters take it in turns – they can be caught or ‘stumped’ if the fielders return the ball the to the fielding base while they are running to score. If this happens the batter takes 1 run off their score, they continue to bat until their 3 scoring chances have been used. • Aim of the game to score as many runs as possible on your turn and as a team of batters (ball/bean bag must go forward) • Fielders are to limit the runs by returning the ball/bean bag back to a given point e.g. a hoop where the batter has started • To encourage fielders to use throwing and catching skills – introduce the rule – fielders are <u>not</u> allowed to run with the ball/bean bag 	<div style="border: 1px solid black; padding: 10px; margin-bottom: 20px;"> <p style="text-align: center;">Strike/Field Core Task to encourage achievement of a standard equivalent to a LEVEL 1</p> </div> 
<p>Level 1 Attainment Target</p> <p><u>Acquiring & developing Skills</u></p> <ul style="list-style-type: none"> - I can roll a ball underarm - I can track an object and move inline to collect - I can throw a ball in a variety of ways depending on the game - I can throw at an object and hit a target (e.g. a person or hoop) most of the time - I can catch a bean bag most of the time - I can catch a medium sized ball most of the time - I can stand in a place which makes it difficult for a my opposition to score <p><u>Selecting and applying skills, tactics, and compositional ideas</u></p> <ul style="list-style-type: none"> - I can choose an appropriate skill within the game I am playing <p><u>Evaluating and improving performance</u></p> <ul style="list-style-type: none"> - I can tell you what skill I am using - I can tell you what somebody else is doing <p><u>Knowledge and understanding of health and fitness</u></p> <ul style="list-style-type: none"> - I can tell you what my body feels like when I have been active 	<p>Level 1 Attainment Target</p> <p><u>Acquiring & developing Skills</u></p> <ul style="list-style-type: none"> - I can roll a ball underarm - I can track an object and move inline to collect - I can throw a ball in a variety of ways depending on the game - I can throw at an object and hit a target (e.g. a person or hoop) most of the time - I can catch a bean bag most of the time - I can catch a medium sized ball most of the time - I can stand in a place which makes it difficult for a my opposition to score <p><u>Selecting and applying skills, tactics, and compositional ideas</u></p> <ul style="list-style-type: none"> - I can choose an appropriate skill within the game I am playing <p><u>Evaluating and improving performance</u></p> <ul style="list-style-type: none"> - I can tell you what skill I am using - I can tell you what somebody else is doing <p><u>Knowledge and understanding of health and fitness</u></p> <ul style="list-style-type: none"> - I can tell you what my body feels like when I have been active
<p>For children working towards this level use these ideas to simplify the core task to help them progress</p>	<p>For children working beyond this level use these ideas to develop the core task to help them progress to Level 2</p>

to Level 1	
<p><u>Easier - Batters</u> S – Space – provide a bigger space for batter to throw into T – Task – batters throw rather than strike a ball E – Equipment – use big soft balls or bean bags. P – People – reduce the game to 1 batter v 2 fielders or even 1v1</p> <p><u>Easier – Fielders</u> S – Space – provide a narrower space for batter to throw into T – Task – batters can only throw using a particular technique e.g. underarm E – Equipment – use big soft ball or bean bag rather than a tennis ball sized ball P – People – increase the fielding team to 4</p>	<p><u>Harder-batters</u> S – Space – batters have to throw into a wedge/'v' shape/vector shaped area T – Task – batters have to e.g. hit ball out of hand, kick or hit a stationary ball on the floor with a hand or bat E – Equipment – batters to use smaller ball and batting surface P – People – increase the game to 4 v 4, put in one of the fielders to feed/bowl batter catches/stops then throws or hits or strikes the feed/bowl directly</p> <p><u>Harder – Fielders</u> S – Space – batters have to throw into a wedge/'v' shape/vector shaped area T – Task – fielders cannot run with the ball (have to work together to send the ball to the fielding base) E – Equipment – use of a smaller lighter ball such as a sponge tennis ball – harder to throw and catch than a bigger sized ball P – People – limit the fielders to 2 people</p>

main focus of periods of teaching and lesson design should concentrate on a particular tactical problem. Designing games to focus learning in this way necessitates 'weighting' or 'conditioning' the game to highlight the chosen skills and tactics. This should provide opportunities through either phases of play or changes in possession, to reinforce and enable reflection upon good decision making and effective use these skills to enact appropriate tactical solutions. The latter will play a focal role in the content of the feedback and guidance offered to pupils. However, positive reinforcement of the correct execution of skills and good decisions made by pupils in opposition should still occur, but should not detract from the purpose of the learning activities. It is the aim of the conceptual frameworks presented in Figures 15, 16 and 17 to provide a secure platform from which decisions can be made on how to plan periods of teaching to facilitate this progressive development of FMS and their application within games activities.

In the conditioned game presented in Figure 19 the pupils who are striking are required to use their 'on-the-ball' skills of sending and 'off-the-ball' skills of running and judging to solve the tactical problem of scoring as many runs as possible. The fielding team, on the other hand, are required to use their 'off-the-ball' skills of intercepting, retrieving, backing-up and covering and 'on-the-ball' skills of stopping, catching and sending to limit this scoring and get the striking players out. If, for example, we focus on the striking aspect of the game, the variety of sending skills, presented in Figure 18, can be applied in this game. Taking the most simple to the more complex, specialised skills, pupils could throw a bean bag, kick a stationary ball, hit a stationary ball with their hand, kick a bowled ball, hit a stationary ball with a bat or hit a fed ball (consistent flight and direction) or hit a bowled ball (with the intention of being difficult to hit) with a bat.

It is important to point out here the significant role the different physical qualities that the surface, playing space and equipment can have on the level of challenge which the game presents to learners. For example, in the case of the game presented in Figure 19, if pupils are playing on a surface upon which a ball will roll very quickly, a significant demand is placed upon the fielding team because stopping or moving to limit the distance moved by the ball is more challenging than if a more resistant surface is being used. It is important that these factors are taken into consideration when deciding on how to adjust the 'Space, Tasks, Equipment and People' dimensions of the game.

Facilitating Learning through Principles of Play, Tactical Problems and Solutions

If we examine our game in Figure 19, the teacher could focus upon the principles of play of sending into space and scoring as a central sphere of learning for their unit of work. In this game pupils could be required to use a self-fed bounce and strike of a ball and run between two cones to score. The teacher may support the pupils' learning by developing skill practices which develop competence in developing; a consistent and reliable self-feed using a bounce, striking the ball from this bounce and striking the ball with the aim of hitting into pre-selected zones to encourage hitting consistently in particular directions and with particular forces. This may then be transferred into the conditioned game presented in Figure 19. With the principles of play of sending into space and scoring in mind the teacher could then alter the STEP

dimension of the game to adjust the technical and/or tactical challenge. For example, the teacher could ensure the technical execution of sending into space is less technically difficult by allowing pupils to use a large ball or large bat. The tactical ease of sending into space could, for example, be supported by limiting the number of fielders to ensure space clearly exists and it is easy to score by limiting the distance batters are required to run to score. Learning could then be progressed by developing the complexity of the technical requirements to hit the ball into space, such as using a small ball and bat or hitting a bowled ball. In a tactical sense, learning can be progressed by limiting the space batters can hit into by giving them a set zone, increasing the number of fielders and increasing the distance required to score and thus increasing the possibility of being stumped 'out'. This should encourage the batter to judge whether they have hit in sufficient space to ensure they are able to make a run or not. When running to score, learning can also be directed to their decisions on how many runs or points can be scored by correlating their hit with the time it takes to score a run. Learning can also be progressed to focus on the importance of keeping track of the ball being fielded in case fewer or more runs can be scored.

The teacher can also take the game presented in Figure 19 to focus learning upon the tactical problem presented to the pupils who are fielding, namely to limit the points scored and try to get the batter out. This is achieved through the tactical solutions of marking the fielding area, choosing the best place to return the ball to and if the game involves bowling; sending the ball to make it hard to score from and or attempting to get the batter out (see Figure 16). The complexity of the skills they use will vary according to the equipment employed, for example if a bean bag is used then the pupils will focus on moving to stop or retrieve the object or catching and throwing the object. If a ball and stumps are being used then they may need to use a specific bowling action, stopping skills and more refined and accurate throwing skills. The tactical application of the skills remains the same, despite the complex demands of the equipment. As with a game focused upon the striking aspect, the STEP dimensions of the game can be similarly altered to ensure learning remains focused upon the fielding aspect of the game. Examples of these adaptations can be seen in Figure 19 in the section below the main description of the game. The relevant principles of play, tactical problems and solutions for this game, possible strategies to develop the game are also presented in Figure 19, in addition to questions the teacher might pose to facilitate discussion are presented in Figure 20.

It is important to point out here that in order to facilitate learning, the side the game is 'weighted' towards (and is the focus of the learning) must be put under appropriate levels of pressure to ensure particular skills and decisions are emphasised. For example, in the case of 'conditioning' the game in Figure 19 to teach the fielding aspects of the game, the teacher will need to adjust the sending task of the striker to ensure they challenge the skills and tactical solutions sought by the fielders, if the striker's score is being kept in check through his/her own mistakes. This can be achieved by increasing the frequency of the striker successfully sending their ball into spaces in the field. If the issue centres on poor judgement by the batter not keeping track of the ball in the field, reducing the distance they have to run can serve to alleviate this problem. If on the other hand, the fielders are not having any success in limiting runs scored or in getting the batter out, the teacher will need to make adjustments to the STEP dimensions to weight the game even more in their favour,

Figure 20: Core Concepts Involved in teaching the Strike and Field Game Core Task for Level 1

Key ingredients to achieve success in this core task	Key teaching points to develop assessment for learning
<p><u>Principles of Play:</u></p> <ul style="list-style-type: none"> • Scoring • Sending into space • Covering space • Limiting scoring <p><u>Tactical Problem</u> Scoring as many runs as possible</p> <p><u>Solutions</u></p> <ul style="list-style-type: none"> • Sending an object and running to score, while the other team retrieves the object • Throwing into space • Throwing far and throwing near – <u>away</u> from the fielders <p><u>Develop the game by asking the pupils to review:</u></p> <ul style="list-style-type: none"> - Looking for places where the fielders are not standing - Throwing using underarm or over arm throw – depending on how far they want it to go and how accurate they need to be - Standing sideways when they throw - Running quickly between markers to score runs - Stop running when the ball is returned to the fielding base <p><u>Tactical Problem</u> Preventing Scoring; Limiting runs scored</p> <p><u>Solutions</u></p> <ul style="list-style-type: none"> • Retrieving an object quickly to limit the number of runs scored by a batter 	<p><u>Questions to develop good batting</u></p> <ul style="list-style-type: none"> - “Where do you want to throw the ball to score as many runs as possible?” - “How are you throwing the ball?” - “Why did you choose to throw the ball that way?” - “Can you point to the best places to throw the ball?” - “How do you know how many runs you have scored?” <p><u>Questions to develop good fielding:</u></p> <ul style="list-style-type: none"> - “Where do you think are the best places to stand to stop the batter scoring many runs?” - “Are Fielders doing a good job, if the batter has scored lots of runs?” - “If someone can not catch the ball all the time, what can you do to help make sure the ball goes in the fielding base?”

<ul style="list-style-type: none"> • Positioning yourself as a member of a team to cover the width of the playing area • Working as a team to retrieve the object <p><u>Progressions to achieve fielding as a team:</u></p> <ul style="list-style-type: none"> - Initially – all the fielders will run to retrieve the ball - this can be a good strategy as throwing and catching can be less efficient! - Introduce the rule that no one can run with the object if they have it in their hand - Develop the team work approach – 1 collects, 1 stands by the fielding base, 1 stands in between to help get the object to the fielding base - ROTATE fielding positions after each batter (esp. the middle fielder close to the fielding base) - Ask pupils to review how they field the object – accuracy of throw, could they roll it if they are not such a good catcher? 	
---	--

such as for example, reducing the space there is available for the batter to send their object into. It is important, however, that the game remains focussed upon the challenge presented to the fielders, which is created by the striker sending into space and running to score. The importance of adjusting the STEP dimensions of the game to accommodate different levels of pupil attainment and ensure learning is being facilitated, demonstrates the need for teachers to take a step back, observe and analyse games whilst the pupils play.

Utilising the National Attainment Target for Physical Education to support Assessment for Learning

Described by the National Curriculum for Physical Education, and divided into nine levels, this requires primary pupils work within Levels 1-3 at Key Stage 1, achieving Level 2 by Year 2 and working within Levels 2-5 at Key Stage 2, achieving Level 4 by Year 6. In order to provide the teacher with how this attainment target may look in games, I have presented within Figure 19 'I can Statements' for each strand of content identified by the National Curriculum; Acquiring and Developing, Selecting and Applying, Evaluating and Improving and Knowledge of Health and Fitness. These have been created by integrating the Attainment Target Level and the suggested content of the QCA Unit of Work. When combined together they can be used by the teacher in formative assessment to provide detailed feedback to pupils. However, it is important that these 'I can Statements' do not become a tool to merely to label pupils with a National Curriculum Level in isolation from the learning experience. The intention of the 'I can statements' is to aid the recognition of pupil progress as it happens (Frapwell, 2010) and should help the teacher to formulate open-ended questions to stimulate pupil discussion and which should serve to inform continuous and progressive teaching and learning. In order to exemplify how core tasks can be applied to other National Curriculum Attainment Levels, Figures 21 and 22 demonstrate how Level 3 may be connected with a Net and Wall Game and Figures 23 and 24, complete the same process for an Invasion Game at Level 4. These Figures also provide examples of how conditioned games may be adapted to facilitate learning of principles of play drawn from the conceptual frame works in Figure 15, 16 and 17 for net/wall and invasion games.

Balancing Fairness, Differences in Pupil Attainment and Creative Game Design

It is evident that the process of designing a game which creates the conditions that help learners to focus on particular skills, tactical solutions and principles of play is a complex pedagogical challenge. The issue of weighting games in favour of one side through rules or more obviously by having more players on one side can create difficulties in the perceived 'fairness' of such games by pupils. This requires the teacher to balance the maturity and cognitive understanding of pupils with the form of the weighted conditions of their game. In the case the game in Figure 19 which focusses on fielding, 'fairness' is created by ensuring the striking pupil is convinced that they have enough space into which to send their object and that the distance required to run to score is deemed achievable. This issue of weighting games in favour of one side can be a particular focus of debate for when designing conditioned invasion games. Many pupils can find it difficult to see the fairness and relevance, for example, of a 3 v 1 invasion game. Possible solutions to these problems can be achieved by making it easier for the sole player to score, such as simply regaining

Figure 21 Net and Wall Game Core Task – Level 3

<p><u>To play a 1 v 1 game over a net or cones</u></p> <ul style="list-style-type: none"> • Aim is to score points by hitting a ball over a net or barrier so it passes the opposition • Use a soft sponge ball – to provide time for the players to catch and hit the ball • Players catch the ball with hand and racket after on bounce, then self feed (drop to bounce) and hit over the barrier/net – into space • Players can not walk with the ball and must hit from where they catch it • Ball must bounce in the court to count – ball can only bounce once • If the ball passes your opponent or your opponent hits the ball out of the court or ball bounces twice before opponent catches it – you score 1 point • Court area needs to be about 3m x 6m • Players have to let the ball bounce to catch, except when standing/attacking from the net 	<div data-bbox="244 796 566 1078" data-label="Text"> <p>Net and Wall Core Task to encourage achievement of a standard equivalent to a LEVEL 3</p> </div> <div data-bbox="660 778 1303 1096" data-label="Diagram"> </div> <div data-bbox="1346 349 1648 375" data-label="Section-Header"> <p><u>Level 3 Attainment Target</u></p> </div> <div data-bbox="1346 413 1682 437" data-label="Section-Header"> <p><u>Acquiring & developing Skills</u></p> </div> <div data-bbox="1346 437 1693 609" data-label="List-Group"> <ul style="list-style-type: none"> - I can show control and co-ordination when I perform skills - I can hit a ball with a racket - I can vary the speed and direction of a ball - I can begin to have a rally with a partner </div> <div data-bbox="1346 617 1686 665" data-label="Section-Header"> <p><u>Selecting and applying skills, tactics, and compositional ideas</u></p> </div> <div data-bbox="1346 671 1682 794" data-label="List-Group"> <ul style="list-style-type: none"> - I can choose actions and skills which help me and my team to attack and defend - I can use my team-mates to beat opponents </div> <div data-bbox="1346 801 1594 850" data-label="Section-Header"> <p><u>Evaluating and improving performance</u></p> </div> <div data-bbox="1346 850 1682 948" data-label="List-Group"> <ul style="list-style-type: none"> - I can compare what I have done with somebody else's performance and use this understanding to improve my performance </div> <div data-bbox="1346 956 1657 1005" data-label="Section-Header"> <p><u>Knowledge and understanding of health and fitness</u></p> </div> <div data-bbox="1346 1005 1682 1078" data-label="List-Group"> <ul style="list-style-type: none"> - I can tell you why warming-up is important and why physical activity is good for my health </div>
<p>For children working towards this level use these ideas to simplify the core task to help them progress to Level 3</p>	<p>For children working beyond this level use these ideas to develop the core task to help them progress to Level 4</p>

Level 3 Attainment Target

Acquiring & developing Skills

- I can show control and co-ordination when I perform skills
- I can hit a ball with a racket
- I can vary the speed and direction of a ball
- I can begin to have a rally with a partner

Selecting and applying skills, tactics, and compositional ideas

- I can choose actions and skills which help me and my team to attack and defend
- I can use my team-mates to beat opponents

Evaluating and improving performance

- I can compare what I have done with somebody else's performance and use this understanding to improve my performance

Knowledge and understanding of health and fitness

- I can tell you why warming-up is important and why physical activity is good for my health

<p><u>Easier to Score and Defend</u></p> <p>S – Space – make the court wider and or deeper</p> <p>T – Task – striker can only throw – one or two handed</p> <p>E – Equipment – use big soft balls, beanbags, etc.</p> <p>P – People – reduce the game to 1 v targets to throw/hit into to score</p>	<p><u>Harder to Score and Defend</u></p> <p>S – Space – make the area smaller</p> <p>T – Task – on receiving the ball the player pats the ball down, lets the ball bounce up then uses their racket to hit the ball straight up, lets the ball bounce again and then hits it into their opponents court – demands timing and control of hitting</p> <p>E – Equipment – use mini red or green tennis balls (slower bounce than regular tennis balls)</p> <p>P – People – play 2 v 2 on a bigger court</p>
--	---

Figure 22: Core Concepts Involved in Teaching the Net and Wall Game Core Task – Level 3

Key ingredients to achieve success in this core task	Key teaching points to develop assessment for learning
---	---

Principle of Play:

- Using depth and width to manoeuvre opponents

Tactical solutions:

Setting up an attack by creating space on the opponent's side of the net

Winning the point

- **Looking where your opponent is standing**
- **Choosing a space in which to hit the ball**
- **Bouncing a ball and hitting with accuracy over a net/central barrier – into space**

Hitting either:

- **At the front of the court**
- **At the back of the court**
- **More advanced tactics:**
- **Hitting into the two front corners of the court**
- **Hitting into the rear corners of the court**
- **Recognising when you have:**
 - **hit a good long shot**
 - **pushed your opponent back**
 - **done these together – move closer to the net to catch ball without it bouncing and returning it quickly into the front corners**

Tactical solutions:

Defending own side of net

Defending against an attack

- **Returning to the middle and rear of the court after returning the ball**
- **Being ready – feet in line, heels off the floor, shoulder width apart hand and racket in front**
- **Receiving a ball by letting it bounce – once – catching it using a hand and the racket head**
- **Hitting good attacking shots**

Progressions to develop the game:

- progress to hitting the ball straight off the bounce, rather than catching it, when the player thinks they can, so long as they maintain their accuracy and hitting for space

Questions to develop good attacking

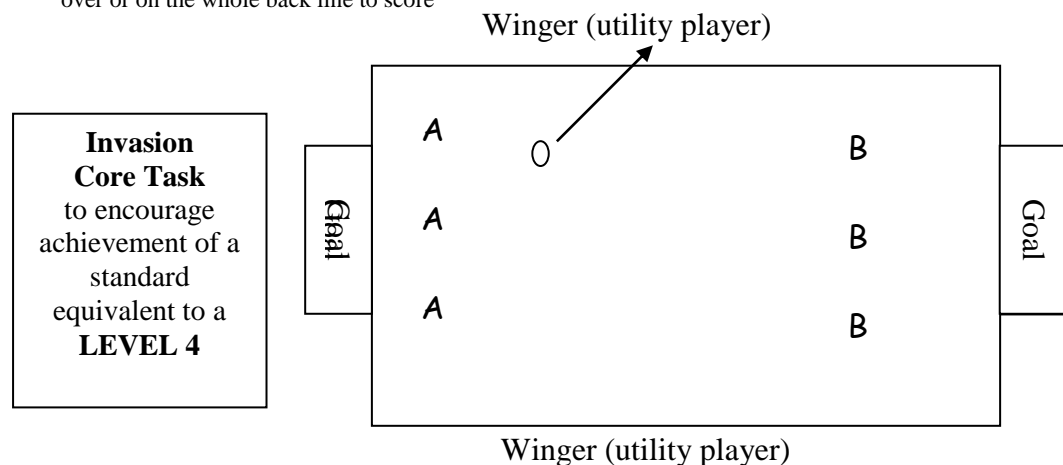
- “How do you score a point?”
- “What do you look at before you hit the ball?”
- “Where do you want to hit the ball?”
- “How do you swing the racket to make sure the ball goes where you want it to?”
- “How hard do you have to hit the ball?”
- “How do you know when you have hit a good shot?”
- “When is it a good time to move towards the net to catch without a bounce?”

Questions to develop good defending:

- “What do you look at when you want to catch the ball?”
- “How do you stand to be ready to catch the ball?”
- “Where is the best place to stand on the court to be ready?”

End of Key Stage Core Task for Level 4 (Year 6)

- Aim of the game – to invade the opposing team’s half and score as many goals as possible
- The game can be based on any invasion game – basketball, netball, football, hockey, rugby – just use the equipment needed for these sports
- Wingers are placed on both sides of the pitch – off the pitch
- Wingers can move up and down the sides of the pitch with or without the ball – they must not go onto the pitch – other players can not come off the pitch to tackle them
- If a winger is passed to by one team – the winger becomes one of their team and must help attack – they must eventually pass to someone on the team that passed them the ball in the first place – the winger then becomes free again and can be used by any team – the winger is in effect on both teams
- When a player is in possession of the ball they should have a 5 v 3 game on their hands (2 wingers at their disposal)
- The goal can either be marked out – or players can be tasked with catching or stopping the ball over or on the whole back line to score



Level 4 Attainment Target

Acquiring & developing Skills

- I can show precision, control and fluency when I perform skills such as catching, hitting, throwing and passing
- I know and use basic rules to keep games going
- I can bowl, catch and strike consistently well
- I can work with my team to score as many runs/rounders as possible
- I can throw to a target both close and a distance away
- I can work with my team to minimise runs/rounders scored and to attempt get batters out

Selecting and applying skills, tactics, and compositional ideas

- I can choose the appropriate skill for different parts of the game
- I can show basic attacking and defending tactics

Evaluating and improving performance

I can tell you what makes someone’s performance effective and use this knowledge to improve my performance

Knowledge and understanding of health and fitness

I can tell you why exercise is good for my health and well-being and why wearing appropriate clothing and being hygienic is good for my health and safety

Level 4 Attainment Target

Acquiring & developing Skills

- I can show precision, control and fluency when I perform skills such as catching, hitting, throwing and passing
- I know and use basic rules to keep games going
- I can bowl, catch and strike consistently well
- I can work with my team to score as many runs/rounders as possible
- I can throw to a target both close and a distance away
- I can work with my team to minimise runs/rounders scored and to attempt get batters out

Selecting and applying skills, tactics, and compositional ideas

- I can choose the appropriate skill for different parts of the game
- I can show basic attacking and defending tactics

Evaluating and improving performance

I can tell you what makes someone’s performance effective and use this knowledge to improve my performance

Knowledge and understanding of health and fitness

I can tell you why exercise is good for my health and well-being and why wearing appropriate clothing and being hygienic is good for my health and safety

For children working towards this level use these ideas to simplify the core task to help them progress to Level 4

For children working beyond this level use these ideas to develop the core task to help them progress to Level 5

<p><u>Easier – Attacking</u></p> <p>S – Space – increase the size of the pitch – especially the width</p> <p>T –Task – add in more than 2 goals – or make them wider – or use the whole back line</p> <p>E – Equipment – base the game on a catch and throw game (netball like)</p> <p>P – People – reduce the number players in the middle to 4 rather than 6 (2 v2 + wingers)</p>	<p><u>Harder – Attacking</u></p> <p>S – Space – reduce the size of the pitch</p> <p>T –Task – allow the winger to be tackled, make a ‘two touch rule’ – one to control one to pass</p> <p>E – Equipment – make the goal smaller – do not allow dribbling</p> <p>P – People – remove a winger or both wingers</p>
--	---

**Figure 23: Invasion
Game Core Task – Level
4**

Figure 24: Core Concepts Involved In Teaching the Invasion Game Core Task - Level 4

Key ingredients to achieve success in this core task	Key teaching points to develop assessment for learning
<p><u>The primary focus of this game is attacking:</u></p> <p><u>Principles of Play:</u> Supporting Creating Space</p> <p><u>Tactical solutions</u> Maintaining possession of the ball Moving the ball into attacking/scoring positions Attacking the goal and scoring</p> <ul style="list-style-type: none"> • Consistent and accurate passing • Passing to a free player • Passing and moving forward • Using wingers to help attack – i.e. use of width – by passing to winger – moving forward – receiving back • Wingers – moving sideways in line with the ball as a constant passing option 	<p><u>Questions to develop good attacking</u></p> <ul style="list-style-type: none"> - “What are you looking for when you have the ball?” - “What do you do when you have not got the ball?” - “How can you make sure it is easy for the ball carrier to pass to you?” - “What do you think are attacking positions?” - “When attacking,, how can you make it easy for the ball to get to you?” - “If the goal is being marked by a defender what can you do to try and create an opportunity to score?” <p>Praise good choices made by the <u>passer</u> AND the <u>supporting</u> players (positioning) – both are key to developing good attacking play - Encourage – thinking of corridors – both supporters and ball carrier:</p> <ul style="list-style-type: none"> • Not too long • Not too short • No defender near to block the corridor <p>If pupils are using long passes to score i.e. looped and high – bring in the rule that the ball must NOT touch the floor – if so the pupils have to start the game again</p>

possession. However, it is also important that the outcomes of attacking or defending tactical solutions in invasion games are discussed with pupils, in particular, the creation of situations on the field where one side is outnumbered by the other. Any search on YouTube of successful attacking play or good defending in invasion games can generate material which demonstrates this aspect of invasion games. Showing such footage to pupils may serve to counter these issues and has the potential to help facilitate an understanding of what the outcomes of tactical solutions can look like in game play. They can also draw attention to the relevance of playing games which focus on particular phases of play.

It is an inherent feature of competitive games that players compete to dominate their opposition by outwitting them. Conditioned games should not attempt to avoid this tension, otherwise their authenticity is lost. Managing fairness and being 'out played' are very important pedagogical considerations and through careful manipulation of the STEP dimensions of the game this can be achieved. It is important, however, that any changes to the game do not detract from progressing towards and exploring the authenticity of outwitting opponents. Forcing all players to touch the ball during game play in an attempt to include all players, for example, does not constitute authentic game play. It creates an unnecessary layer of decision making, requiring pupils to concentrate on how to ensure all players to be involved, rather than seeking a quick and effective tactical solution. Such rules can have the reverse effect to their intended aim, by making pupils with weaker skills the focus of play, rather than full attention being given to the enactment of the tactical solution. For example, if a player with weak skills is unnecessarily thrown a ball because they have to falsely touch it, they are placed under double pressure; from both the opposition and their own team. Any mistake then causes a false delay in play and it is the pupil who makes this mistake that then becomes the weak link in reaching the tactical solution, not the initial play of the opposition. In order to ensure all players progress in their ability to contribute to the tactical solutions it is important that they also have regular opportunities to perform their on-the-ball and off-the-ball skills. This is best achieved by avoiding 'all players must touch the ball' rules and providing a balance of opportunities for progressive technical practices and enabling these skills to be performed in context. Such spaces for technical work might be created in initial lesson stages or as an activity once pupils have played their conditioned game and reflected on their performances.

In the case of designing a fielding game based on the game in Figure 19, a solution to ensuring all the fielders have an opportunity to apply their skills and to work together to field the ball is to have a rule that no fielder can run with the ball when it is in their hands. The application of this rule helps minimise the dominant or busy player because one player has to intercept or retrieve the ball, one player needs to cover the fielding base and the other player can either back-up the fielding base in the case of an over throw. Alternatively, the player may choose to place themselves in between the fielding base and the retrieving player if the throw is unlikely to reach the fielding base. Such a decision will demand that fielders get to know their strengths and weaknesses and work together to support potential weaknesses through their choice of tactical solutions. Rules such as this also enable the teacher to draw attention to the efficiency of an accurate throw rather than running with the ball to the fielding base. It also helps emphasise backing-up and covering as tactical solutions, because they need to occur in order to limit scoring and get the batter out.

Adapting the conditions of games can facilitate other pedagogical solutions to teaching groups of pupils with different abilities. When there is a gulf in pupils' development, grouping pupils to play games with those who have similar ability levels enables the teacher to make efficient and focussed adjustments to the STEP dimensions of the game. It also enables the teacher to progress learning when groups of pupils are achieving success by increasing the whole challenge of the game, rather than trying to increase the challenge for particular pupil, as would be the case in a mixed ability game. It might be that in a lesson there are seven or eight games being played, all with slightly different STEP dimensions which meet the learning needs of each group of pupils. However, this does not mean that pupils are learning vastly different skills and tactical solutions. The structure of a conditioned game played in primary school can be exactly the same as one played with a group of Year 11 pupils learning a specialised sporting form of a game. The only difference will be the equipment, specialised techniques and STEP dimensions. The tactical solutions and problems should be exactly the same.

Designing conditioned games which enable the teacher to scaffold the learning in this way requires clear learning objectives and outcomes before the design process commences. This will facilitate easier decisions on an appropriate instructional style. The exploration of relationships between principles of play, tactical problems, tactical solutions and skills presented by the frameworks in Figures 15, 16 and 17 require a convergent approach. To prevent confusion of the learner games which demand too many decisions from the learner should be avoided. The creative nature of the game design should focussed upon on careful consideration the STEP dimensions of the game in order to create consistent and regular opportunities for learners to have the time and space to select and apply the skills and tactical solutions being explored.

Pupil Designed Games

Asking pupils to design their own games is a strategy which can engage pupils in creative processes and in turn, increase pupils' interest and ownership over their own learning (Rovegno and Bandhauer, 1994; Lavin 2007). This strategy can also help pupils to understand the close relationship between rules, the tactical problems they create and the skills which need to be used to overcome them (Lambert, 2010). Inherent within the process of asking pupils to engage in 'game making' are the requirements for groups of pupils to think critically about their game playing experiences and to work co-operatively to problem solve. However, as Hastie (2010) emphasises, there is a great danger in simply providing equipment for pupils and asking them to create a game. Without careful structuring of the game creation process, extremely valuable learning experiences can be lost (Rovegno and Bandhauer, 1994). Almond (1986) believes that the teacher's role is vital in creating and guiding pupils through the creative process. He argues this requires the teacher to learn to tread the line between 'observing', to allow pupils time to create and trial and 'intervening', to assist pupils in finding workable solutions to their 'games making' problems. In fulfilling this delicate role the teacher becomes a facilitator, consultant, mentor and learning resource.

According to Hastie (2010) effective 'games making' should be based on the progressive process of; designing, trialling, refining, presenting and allowing others to

play and evaluate the created game. This process requires the teacher to highlight the two fundamental ingredients to enjoyable games; firstly, the game must present opportunities for players to develop their 'skilfulness' to overcome the tactical problems imposed by the rules and secondly, that scoring should be directly related to skilfulness and not luck. He argues in order for the pupils to design games which will support these qualities, pupils need to be given the following framework to support their game design.

The game must:

- Contribute to skill development
- Be safe
- Include, not eliminate players
- Require high participation
- Be structured so all players are challenged and have consistent opportunities to be successful (Hastie, 2010; p6)

Lavin (2007) suggests the use of cards which establish the initial problem of creating a game, however, also provide children with a structure within which they can work, such as the identification of particular equipment, skills or tactics which have to be employed within the game. Engaging in such a pedagogical approach to games teaching is challenging and requires the teacher to be knowledgeable about different categories of games. In recognition of this, Hastie (2010) advises teachers to start with simple 'running and tagging' games or target games, and as confidence and experience grows the teacher can venture with encouraging pupils to create more complex games (For a very useful and comprehensive guide to 'game making' see Hastie, 2010).

Planning the Teaching of Games across Key Stages 1 and 2

Knowledgeable and skilful game play stems not only from careful game design but also considered curricula design. Primary school Physical Education curricula should aim to spiral skill learning so that pupils regularly revisit the technical aspects of fundamental movement skills. This entails designing routes of learning which allow pupils to regularly review and develop their technical execution of skills alongside opportunities to explore their decisions to select and apply these skills. This aspect of learning should fall at the centre of the provision of a variety of different movement contexts, which demand particular kinds of decisions and skilled movement.

We have seen in Figure 25 that games vary in their complexity and this is predominately determined by their rules which create particular tactical problems. Some games demand the simple application of skills to overcome these problems, whereas other games demand more complex decision making. Target games present very a simple tactical problem to the player, which depending on the rules of the game, can demand the performance of very easy or very difficult skills. For example, throwing the ball into a hoop from a cone two metres away, demands much less difficulty in skill performance than playing a hole in tri-golf. However, when the complexity of net and wall, striking and fielding, and invasion games are examined, a different level of difficulty arises, which focus around their respective principles of play.

A comparison of the frameworks presented in Figures 15, 16 and 17 demonstrates that there is a distinct difference between the number and complexity of principles of play, tactical problems and the respective on-the-ball and off-the-ball skills. Net and wall games require players to understand and enact simple and a small number of principles of play, while invasion games demand players to apply more complex combinations of skills to solve more difficult tactical problems and thus enact more involved principles of play. Striking and fielding games occupy the middle ground of complexity between invasion and net and wall games. It is very important to emphasise here, that any game can be made complex by creating rules which demand players to use sophisticated skills. This can be misleading for both the learner and teacher.

As we have seen from the analysis of game-based pedagogical models the planning of learning experiences in games requires a balance to be reached between developing the technical competence of pupils to perform a range of complex skills and developing the ability of pupils to develop a holistic and coherent understanding of games. Overtly focussing on the expert performance of particular skills in order to play certain games prevents those learners unable to perform these skills from learning about the relationship between principles, tactics and skills, within and between categories of games. Therefore, by employing principles of play as a conceptual approach to planning learning, a progressive and holistic understanding of these aspects of games education can be achieved. Using hierarchical levels of complexity for the different categories of games presented in Figure 14, I have constructed a suggested overview of how to plan for learning across Key Stages 1 and 2 in Figure 25. This identifies when particular categories of games may be introduced and developed. It does not represent a definitive guide to curricula time phasing and apportioning of lesson time for each category of game. It merely serves as an illustration of how careful planning is required to take into consideration game complexities and thus, achieve a balanced games curriculum. Obviously, local school-based operational logistics, such as time, equipment and available work spaces need to be considered. However, decisions about learning in games must be based upon the learning needs of the pupils and a thorough rationale, such as the conceptual approach discussed, rather than learning being determined by individual teacher preferences towards particular sporting versions of games.

As can be seen in Figure 25, the simplicity of target games lends them to the first game category to be studied. Net and wall games are introduced slightly later at Year 1. Both remain a consistent feature of the curriculum overview, allowing time for 'revisiting' with the progressive development of more complex hitting skills and the introduction of more demanding playing areas. Striking and fielding games appear towards the end of Key Stage 1 and occupy a prominent role at the beginning of Key Stage 2, this presents the opportunity for pupils to apply their accurate sending skills and become familiar with key principles of play and tactics. This also provides further curriculum space for pupils to continue to develop their understanding, gradual application of more difficult skills and the inclusion of more players.

Owing to their complexity, the time allotted to invasion games grows more significant as Key Stage 2 progresses, occupying a key role in Years 5 and 6. This also allows pupils to develop their ability to cope with working co-operatively and competitively

within small teams. Games making is a consistent feature across the curriculum and can be integrated into games learning, providing the opportunity to reinforce particular relationships between rules, tactical problems and skills.

Figure 25: Suggested Phased Introduction of Games In Key Stages 1 and 2 (Adapted from Doherty and Brennan, 2007)

Game Category	Foundation Stage	Key Stage 1		Key Stage 2			
	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Games Making							
Target Games							
Striking and Fielding Games							
Net/Wall Games							
Invasion Games							

Line thickness corresponds to amount of time dedicated to each game category; the thicker the line the more time is allocated.

Chapter Summary

This chapter has introduced the following concepts which aim to provide a helpful rationale for the teaching of games in Key Stages 1 and 2:

1. Tactical game-based pedagogical models which can be employed to teach games.
2. A categorisation of games based upon the tactical problems created by their specific rules, equipment and playing areas; Target, Net/wall, Strike/field, Invasion Games (Table 1).
3. On the basis of this categorisation of games, conceptual frameworks have been present which utilise consistent terminology and core concepts to provide the teacher with an overview of the core; Principle(s) of play, Tactical Problems and Solutions, 'On-the-ball' and 'Off-the-ball' skills, demanded by each game category (Figures 15, 16 and 17).
4. Five core skill categories which can be applied to the tactical problems posed by different games (Figure 18). For each category examples have been presented of recognised game skills and how these relate to the categories of Fundamental Movement Skills, which in turn, underpin all movement in Physical Education. Examples are also presented which illustrate how simple forms of these skills can be applied to simple tactical problems. In addition further examples of how these skills can be developed and refined into more specialised skills and applied to more complex sport specific game forms are provided (Figure 18).
5. Conditioned games based upon the adaptation of the STEP dimensions to create opportunities to scaffold learning about the relationships between principles of play, tactical problems, tactical solutions and on-the-ball and off-

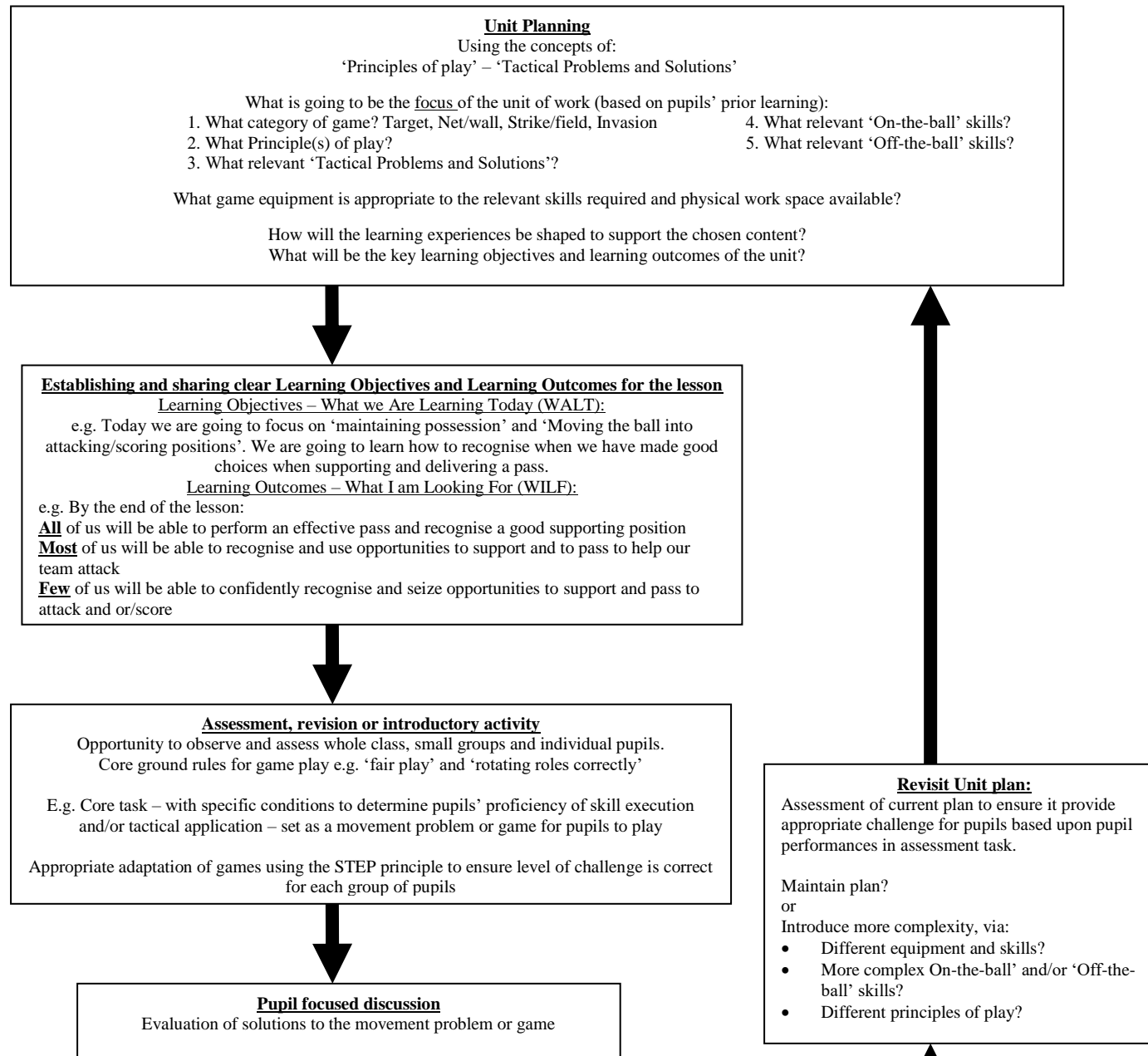
the-ball skills. Examples of basic forms of conditioned games which can be adapted for use across Key Stages 1, 2 and 3 are presented (Figures 19 to 24).

These identify:

- How the game is played – key rules and processes.
 - How the game can be adapted to increase or decrease the level of challenge
 - ‘I can’ statements which map with the National Attainment Target for Physical Education and the QCA units of work for games at Key Stages 1 and 2, and describe how each level relates to learning in games.
 - Core concepts involved in playing the game, including examples of open-ended questions to help promote reflection and evaluation through pupil focussed discussion.
6. Weighting games in favour of one side of the conditioned game to focus learning and provide opportunities through either phases of play or changes in possession, to reinforce and facilitate reflection upon good decision making and effective use of skills to enact appropriate tactical solutions.
 7. Planning a games curriculum across Key Stages 1 and 2 based upon a conceptual model of complexity comprised of; principles of play, tactical problems, on the ball and of the ball skills (Figure 25).

The challenge now remains to demonstrate how these concepts and content knowledge may be linked to provide progressive and differentiated learning experiences. Figure 26 presents how this can be achieved through; initial unit planning, presentation and sharing of learning objectives and learning outcomes, assessment and revision of prior learning, pupil reflection and evaluation, focussed skill and/or tactical practice, revisiting of the initial learning activity, lesson plenary and finally a re-evaluation of the unit planning. This model follows a similar format to the game-question-reflect-practice-game process proposed by Pill (2007). Such an approach encourages teachers to move their thinking from a technical based model of teaching games to one which allies itself closer to pedagogical models such as TGfU. Teaching games in this way requires the teacher to create learning experiences that enable pupils to understand and enact the relationships between skills, tactics and overarching principles of play. This is dependent upon the teacher having a clear understanding of what is to be taught in the form of learning objectives and allowing pupils to know how achieving these objectives will look like, in the form of success criteria or learning outcomes. These learning objectives and outcomes determine the choice and sequencing of learning activities. They will also drive the shaping of pupils discussion through the effective use of open-end questioning that enables pupils to reflect upon their execution and application of skills in game contexts. As Giménez et al (2010) have discovered, pedagogic approaches such the model presented, are very influential in helping pupils to learn to make effective decisions and develop a greater understanding of game play. More fundamentally allowing pupils to play games, if taught successfully, is both motivating and socially stimulating. It has been the aim of this chapter to enable the teacher to create such leaning experiences.

Figure 26 A suggested pedagogical model for teaching games at Key Stages 1 and 2



References

- Almond, L. (1986) Primary and secondary rules in games, in R. Thorpe, D. Bunker and L. Almond (eds.) *Rethinking games teaching*, Loughborough: University of Technology
- Armour, K. M. and Evans, J. (2004) *Continuing professional development: provision for Physical Education teachers*, London: Economic and Social Research Council.
- Armour, K. and Yelling, M. (2004) Continuing professional development for experienced Physical Education teachers: towards effective provision, *Sport Education and Society*, 9(1), 95-114.
- Belka, D. (2004) Substituting developmental for traditional games in elementary Physical Education, *Teaching Elementary Physical Education*, 15(4), 21–24.
- Blanchard, K. (1995) *The anthropology of sport: An introduction*, New York: Bergin Garvey.
- Bunker, D. and Thorpe, R. (1982) A model for the teaching of games in the secondary school, *Bulletin of Physical Education*, 18(1), 5-8.
- Butler, J. (1997) How would Socrates teach games? A constructivist approach, *Journal of Physical Education, Recreation and Dance*, 68(9), 42-47.
- Capel, S. (2000) Approaches to teaching games. In S. Capel and S. Piotrowski, S. (eds.) *Issues in Physical Education*, London: RoutledgeFalmer.
- Capel, S. (2007) Moving beyond Physical Education subject knowledge to develop knowledgeable teachers of the subject, *Curriculum Journal*, 18(4), 493-507.
- Chandler, T. (1996) Reflections and further questions (teaching games for understanding method), *The Journal of Physical Education, Recreation and Dance*, 67(4), 49-53.
- Curtner-Smith, M. (1996) Teaching for understanding: Using games invention with elementary children, *The Journal of Physical Education, Recreation and Dance*, 67, 24–28.
- Den Duyn, N. (1997) *Game sense: Developing thinking players*. Canberra: Australian Sports Commission.
- Doherty, J. and Brennan, P. (2007) *Physical Education and development 3-11: A guide for teachers*, London: Routledge.
- Dyson, B., Griffin, L. and Hastie, P. (2004) Sport education, tactical games, and cooperative learning: theoretical and pedagogical considerations, *Quest*, 56, 226-240.
- Frapwell, A. (2010) Assessment in Physical Education: Fit for purpose? We've got an APP for that! *Physical Education Matters*, 5 (3) 13-18.

- Foreman, G. and Bradshaw, A. (2009) *An introduction to the FUNdamentals of movement*, Leeds: SportsCoach UK.
- Forrest, G., Webb, P. and Pearson, P. (2006) Games for understanding in pre service teacher education: A 'Game for Outcome' approach for enhanced understanding of games, Conference proceedings for the Asia Pacific Conference on Teaching Sport and Physical Education for Understanding, University of Sydney 14-15 December 2006.
- French, K. and Thomas, J. (1987) The relationship of knowledge development to children's basketball performance, *Journal of Sport Psychology*, 9, 15-32.
- Gallahue, D. and Donnelly, F. (2003) *Developmental Physical Education for all children* (4th edition), Champaign: Human Kinetics.
- Gallahue, D. and Ozmun, J. (1995) *Understanding motor development: Infants, children, adolescents, adults* (6th Edition), Madison, WI: Brown and Benchmark.
- Giménez, A. M., Valenzuela, A. V. and Casey, A. (2009) What are we being told about how to teach games? A three-dimensional analysis of comparative research into different instructional studies in Physical Education and School Sports. *Revista Internacional de Ciencias del Deporte*, 6(18), 37-56.
- Green, K. (2008) *Understanding Physical Education*, London: Sage Publications.
- Gréhaigne, J., Richard, J., and Griffin, L., (2005). *Teaching and learning team sports and games*. RoutledgeFalmer, New York.
- Griffin, L., Mitchell, S. and Oslin, J. (1997) *Teaching sports concepts and skills: A tactical games approach*, Illinois: Human Kinetics.
- Griffin, L. and Sheehy, D. (2004) Using the tactical games model to develop problem-solvers in Physical Education, in J. Wright, D. Macdonald, and L. Burrows, (eds.), *Critical inquiry and problem-solving in Physical Education*, London: Routledge, 33-48.
- Griffin, L., Brooker, R. and Patton, K. (2005) Working towards legitimacy: two decades of teaching games for understanding, *Physical Education and Sport Pedagogy*, 10(3), 213-223.
- Griggs, G. (2007) Physical Education: primary matters, secondary importance, *Education 3-13*, 35(1) 59-69.
- Griggs, G. (2010) For sale - primary Physical Education. £20 per hour or nearest offer, *Education 3-13*, 38 (1), 39-46.
- Hanford, C., Davids, K., Bennet, S. and Button, C. (1997) Skill acquisition in sport: Some applications of an evolving practice ecology, *Journal of Teaching in Physical Education*, 20, 55-77.

- Hastie, P. (2010) *Student Designed Games: Strategies for promoting creativity, co-operation and skill development*, Champaign: Human Kinetics.
- Holt, R. (1989) *Sport and the British - A modern history*, Oxford: Oxford University Press.
- Hopper, B. Grey, J. and Maude, P (2000) *Teaching Physical Education in the primary school*, London: RoutledgeFalmer.
- Howarth, K. (2005) Introducing the teaching games for understanding model in teacher education programmes, in L. Griffin, and J. Butler (eds.) *Teaching Games for Understanding. Theory, Research and Practice*, 91-105, Illinois: Human Kinetics.
- Jarvie, G. (2000) *Sport, culture and society: An introduction*, Abingdon: Routledge.
- Jess, M., K. Dewar, and G. Fraser (2004) Basic moves: Developing a foundation for lifelong physical activity, *The British Journal of Teaching Physical Education*, 35(2), 23-27.
- Kirk, D. (2005) Model based teaching and assessment in Physical Education: The Tactical Games Model, in K. Green, and K. Hardman (eds.) *Physical Education: Essential Issues*, London: Sage.
- Lambert, J. (2010) Learning and teaching through games activities, in G. Stidder and S. Hayes (eds.) *The really useful Physical Education book: Learning and teaching across the 7-14 age range*, London: Routledge.
- Lauder, A. G. (2001) *Play Practice. The games approach to teaching and coaching sports*, Champaign, IL: Human Kinetics.
- Lave, J. and Wenger, E. (1991) *Situated learning: Legitimate peripheral participation*, Cambridge: Cambridge University Press.
- Lavin, J. (2007) The creative approach to teaching games in key stage three and four: the forgotten aspect of Physical Education, *Physical Education Matters*, 2(4), 20-23.
- Light, R. (2005) An international perspective on teaching games for understanding, *Physical Education and Sport Pedagogy*, 10(3), 211-212.
- Light, R., and Georgakis, S. (2005) Integrating theory and practice in teacher education: The impact of a game sense unit on female pre-service primary teachers' attitudes towards teaching Physical Education. *Journal of Physical Education New Zealand*, 38(1), 67-80.
- Magill, R. (2004) *Motor learning and control: Concepts and applications* (7th edition), Boston: McGraw-Hill.

- McIntosh, P. (1980) The curriculum of Physical Education: an historical perspective. In *Curriculum development in Physical Education*, ed. J. Kane. London: Crosby Lockwood Staples.
- Mandigo, J., Butler, J. and Hopper, T. (2007) What is teaching games for understanding? A Canadian perspective, *Physical Education and Health Journal*, 14-20.
- Mangan, J. (1981) *Athleticism in the Victorian and Edwardian public school*, Cambridge: Cambridge University Press.
- Mauldon, E. and Redfern, H. (1981) *Games teaching: An approach for the primary school*, Plymouth: Macdonald and Evans.
- Masters, R. (2000) Theoretical aspects of implicit learning in sports, *International Journal of Sport Psychology*, 31 530-541.
- McPherson, S. and Thomas, J. (1989) Relation of knowledge and performance in boy's tennis: age and expertise, *Journal of Experimental Child Psychology*, 48, 190-211.
- Mitchell, S. and Oslin, J. (1999) An investigation of tactical transfer in net games, *European Journal of Physical Education*, 11(3), 8-11.
- Mitchell, S., Oslin, J. and Griffin, L. (2006) *Teaching Sport Concepts and Skills: a tactical games approach*, Leeds: Human Kinetics.
- Morley, D., Tremere, R. and Fitzsimmons, T. (2007) *Talent development in Physical Education and sport CPD 2007 module*, Loughborough: Youth Sport Trust
- Okley, A. and Booth, M. (2004) Mastery of fundamental movement skills among children in New South Wales: Prevalence and sociodemographic distribution, *Journal of Science and Medicine in Sport*, 7(3), 358-72.
- Office for Standards in Education (OFSTED) (2000) *Teaching of Physical Education in primary schools*, London: The Stationery Office.
- Office for Standards in Education (OFSTED) (2005) *Physical Education in primary schools*, London: The Stationery Office.
- Office for Standards in Education (OFSTED) (2009) *Physical Education in schools: 2005/2008 working towards 2012 and beyond*, London: The Stationery Office.
- O'Leary, N. (2008) Teaching games for understanding in learning to outwit opponents, *Physical Education Matters*, 3(4), 18- 20.
- Oslin, J. and Mitchell, S. (2007) Game-centred approaches to teaching Physical Education, In D. Kirk, D. Macdonald and M. O'Sullivan (Eds.), *The handbook of Physical Education*, 627-651, London: Sage Publications.

- Penney, D. (2000) Physical Education, Sporting Excellence and Educational Excellence, *European Physical Education Review*, 6(2), 135-150.
- Piggott, B. (1982) A psychological basis for new trends in games teaching, *Bulletin of Physical Education*, 18(1), 17-22.
- Pill, S. (2007) Teaching games for understanding, *Sports Coach*, 29(2), 27-29.
- Piltz, W. (2004) *Reading the game—A key component of effective instruction in teaching and coaching*. Paper presented at the 2nd International Conference: Teaching Sport and Physical Education for Understanding, Melbourne, 11-14 December.
- Pope, C. (2005) Once more with feeling: affect and playing the TGfU model, *Physical Education and Sport Pedagogy*, 10(3), 271-286.
- QCA (2000) *A scheme of work for Key Stages 1 and 2*, London: Department for Education and Skills.
- Raab, M. (2007) Think SMART, not hard – a review of teaching decision making in sport from an ecological rationality perspective, *Physical Education and Sport Pedagogy*, 12(1), 1-22.
- Rovegno, I. and Bandhauer, D. (1994) Child-designed games: experience changes teachers' conceptions, *Journal of Physical Education, Recreation and Dance*, 65(6) 60-63.
- Rovegno, I. and Dolly, J. (2006) Situated learning perspectives, in D. Kirk, D. Macdonald and M. O'Sullivan (eds.), *The handbook of Physical Education*, London Sage, 262-274.
- Russell, R. (1995) (ed) *The FA Football Development Programme: Football curriculum guide*, London: The Football Association.
- STEPS Professional Development and Consultancy (2004) Learning, teaching and assessment: preparing children for an active healthy lifestyle, Watchfield: STEPS Professional Development and Consultancy.
- Thorpe, R., Bunker, D and Almond, L. (1984) A change in the focus of games teaching, in M. Pieron, G. Graham (eds.) *Sport pedagogy: Olympic scientific congress proceedings*, Illinois: Human Kinetics.
- Turner, A. (2005). Teaching games for understanding at the secondary level, in L. Griffin, and J. Butler (eds.) *Teaching Games for Understanding: Theory, Research and Practice*, 71-89, Illinois: Human Kinetics.
- Van Beurden, E., Zask, A and Barnett, U. (2002) Fundamental movement skills? How do primary school children perform? The 'Move it Groove it?' program in rural Australia, *Journal of Science and Medicine in Sport*, 5(3), 244–252.

Ward, G. (2011) Examining Primary School Physical Education Coordinators' Pedagogical Content Knowledge of Games: Are we just playing as this? *Education 3-13*, i-first.

Ward, G. and Griggs, G. (2011) Principles of play: a proposed framework towards a holistic overview of games in primary Physical Education, *Education 3-13*, i-first
<http://dx.doi.org/10.1080/03004279.2010.480945>

Wright, S., McNeill, M., Fry, J. and Wang, J. (2005) Teaching teachers to play and teach games, *Physical Education and Sport Pedagogy*, 10(1), 61-82.